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ORIGINAL LECTURES.

AN ADDRESS BEFORE THE MEDICO-LEGAL SOCIETY OF PHILADELPHIA.

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MR. PRESIDENT, AND GENTLEMEN OF THE MEDICO-LEGAL SOCIETY OF PHILADELPHIA,—I have been honored with an invitation to make you an address on this evening, which I understand is the opening of your annual session. It has afforded me much pleasure to accept this invitation, for two reasons: first, because it enables me to express to you my cordial sympathy in this movement on your part to inaugurate a Society whose object is to interest the two great professions of Medicine and Law in that most important, but hitherto much-neglected, science of *Legal Medicine;* and, secondly, because I thought that possibly I might be able to suggest to my medical brethren who are members of this Society, some few practical hints pertaining to the subject, which might prove useful in their future development of the science.

I may embrace the occasion to remark that it has seemed to many of us a matter of surprise, that in the city of Philadelphia, which may rightly be termed the mother of American medicine and the nurse of American medical schools, no attention whatever has been given to Medical Jurisprudence as a science, by either of the two professions of law or medicine, until within comparatively few years—very partially in Medicine only, but not at all in Law up to the present day.

I find, in looking over the literature of this subject, that the first public teacher of legal medicine in this country was Dr. James S. Stringham, of New York, who lectured upon it in Columbia College in the year 1804. In 1815, Dr. T. R. Beck was appointed Professor of Medical Jurisprudence in the Western Medical College; and, not long after, Dr. Walter Channing was elected to the chair of Midwifery and Medical Jurisprudence (a rather curious association of subjects), in Harvard University. Since that period, most of the leading medical schools of our country, and even some of the second and third rate schools, have made this branch a part of their regular systematic course of instruction, though, it must be confessed, a very small and insignificant part, inasmuch as it is usually tacked on to some other branch, like an unnatural excrescence, apparently to swell the size of the programme, and thus bid for popular patronage. I need hardly say that the amount of medico-legal instruction given in all such schools is exceedingly meagre.

In the year 1810, Dr. Benjamin Rush delivered an introductory lecture to his course on the Practice of Medicine in the University of Pennsylvania, in which he dwelt in an eloquent and impressive manner on the importance of the study of medical jurisprudence. But no further attention seems to have been bestowed upon the subject by the authorities of that institution for more than fifty years, when the liberality of one of Rush's most distinguished successors in the chair of Practice, the late Emeritus Professor Dr. George B. Wood, endowed a chair of Medical Jurisprudence and Toxicology, along with several other chairs, constituting what is known as the Auxiliary Faculty of Medicine in the University of Pennsylvania. This, I say, was the very first attempt ever made in this city even to recognize the science of medical jurisprudence. But even this was only a very partial recognition, inasmuch as the study was not made obligatory upon the student, nor was it regarded as essential to his graduation in medicine.

I remarked a few moments ago, that the legal profession in our city had made absolutely no provision whatever for instructing the law-students in the science of medical jurisprudence. This must certainly strike you as a remarkable and somewhat anomalous circumstance. It is, however, true that soon after the establishment by Dr. Wood of this chair in the medical department of the University, in 1865, the trustees created a professorship of medical jurisprudence in the law department of that institution. But, singular to relate, while the programme of the law school embraces (on the published catalogue) a professorship of medical jurisprudence along with the four other law-professorships, the students are quietly informed that attendance on the former course, although recommended, is not obligatory, and that they will not be examined thereon for gradua-

tion in law! As a matter of course, such an arrangement makes the medical-jurisprudence professorship a dead letter, and has proved a most effectual extinguisher to any attempt to instruct our rising generation of lawyers in the science of legal medicine. Yet I presume that the average common-sense mind among us, and among the public generally, will fail to comprehend by what species of intuition the Philadelphia law-student is to acquire a knowledge of *criminal law* without ever having learned the principles of medical jurisprudence! The simple truth of the matter is that our law-students are encouraged (so it would appear) to ignore criminal law altogether. It has been quite too much the fashion for our young barristers to look down with contempt upon this branch of their profession, as savoring too much of the quarter-sessions' practice. This, be it remarked, is a traditionary prejudice, peculiar, I incline to think, to Philadelphia; but its absurdity is too evident to require comment.

I have ventured these remarks, gentlemen, because I am probably better aware than you can be, of the stubborn nature of the soil which you will have to overcome in our community before you can hope to gather much of a harvest in medico-legal research. I should greatly rejoice to see your Society taking a very decided stand in this matter, exciting the interest that it deserves, and that ought to be so spontaneous, in both the great professions of law and medicine in our city, and enlisting in its support and co-operation the best talent of both professions. In our sister city of New York, such a society has been in active operation for a number of years; it numbers among its members some of the brightest physicians and lawyers of that city, and its published papers contain most valuable material for the medico-legal student. Certainly, Philadelphia ought not to be lagging behind in this matter; nevertheless, I must in all sincerity say to you that we can hope for but little success, until we succeed in breaking through the pretty thick crust of indifference, not to say apathy and opposition, that we may have to encounter from both the professions.

Let me now turn to something more directly bearing on the occasion of my meeting you this evening, viz., to venture to throw out a few practical hints in relation to the cultivation of the study of medical jurisprudence. Let us first clearly understand the meaning of the term. Medical jurisprudence, or, as it is sometimes named, legal or forensic medicine, is the science that teaches the application of medicine to the purposes of the law. The grand object of the law is the discovery of truth. In order to attain this object it lays under contribution every department of knowledge,—medicine among the rest. A superficial observer is surprised to discover the intimate relationship subsisting between the two sciences of medicine and law. How many doubtful questions are solved in a court of justice solely by medical jurisprudence! Think only of the numerous cases of sudden death occurring under suspicious circumstances; of persons found dead; of real or alleged insanity; of personal identity; of infanticide and criminal abortion, and numerous other cases depending for their final settlement mainly, if not exclusively, upon medical testimony. In fact, every branch of medicine may be summoned to contribute its quota as occasion may arise. Thus, is it a trial for murder in which the proof of the crime is closely connected with certain marks of violence discovered on the dead body? at once the skill of the anatomist and surgeon, as also that of the pathologist, comes into requisition. Is it a trial for criminal abortion, infanticide, or rape? here immediately the knowledge of the obstetrician becomes indispensable. Is it a trial for poisoning? here the skill and experience of the chemist and toxicologist, and, it may be, of the botanist, will become absolutely necessary. And when the case is one involving the complex questions of insanity,—as in determining the validity of a will, or the criminal responsibility of a homicide,—who can give the required information, or enlighten the court and jury, save he who has mastered the complex and subtle study of the mental and psychological functions? It were easy to multiply illustrations of this nature, but the above will suffice to indicate the intimate connections subsisting between medicine and law.

It is sometimes the fashion to depreciate the study of medical jurisprudence, as being of no actual practical value to the student or the physician,—I need not say the lawyer also; but this mistake must surely arise from the grossest ignorance. It were easy to show the falsity of such an idea. One of the first cases to which the

young physician may be called, after settling down to practice, and one to which any of ourselves is liable any moment to be summoned, may be a case involving a knowledge of this very science. For instance, it may be a case of gunshot wound, or of dangerous injury from some other cause, or from the administration of poison. As a skilful physician or surgeon, he, of course, immediately addresses himself to the care of the patient. But should there be any suspicious circumstances connected with the case, and especially if the issue should be fatal, he must not for a moment suppose that his duties end there; far from it. His profession and his position both require him to go into all the circumstances of the case. Were these injuries, or this poisoning, homicidal, suicidal, or accidental? If death resulted from a pistol- or rifle-ball, what were its direction and distance? If it is a poison case, then did the death really result from the poison, and, if so, what sort of poison? or what latent disease may have been the real cause of death? Or, is a lifeless body discovered in the water,—was the death here really caused by drowning, or was a murder first committed and the corpse subsequently thrown into the water in order to elude suspicion? A thousand questions of this sort are ready to confront the physician in his daily experience; and, unless he has added to his mere medical knowledge an understanding of the principles of legal medicine, he may find himself in an unpleasant predicament, since he will be compelled to assume the functions of the legal physician, when he subsequently appears in court, to give his medical testimony.

I trust I may be pardoned if I put this subject before you in a still more home-like manner, and try to draw a picture, the counterpart of which some of my hearers may but too readily recognize. Let me suppose a young physician, comfortably settled in practice, with everything around him prosperous and happy. Devoted to his profession and well instructed in all its details, he is anxiously looking out for cases on which to exercise his skill and dexterity. He is suddenly summoned to a case of fracture of the thigh, or, it may be, a dislocation of the wrist-joint. With promptitude he repairs to the suffering patient, and puts in practice the well-remembered instructions of the class-room and clinic. He applies his splints and bandages after the most approved methods, he soothes the resulting inflammation, he closely watches for unfavorable symptoms, and he very naturally anticipates a favorable termination of the case; when, unhappily, either owing to some vice in the patient's constitution, some previous bad habits of life, some climatic or hygienic influence, or some of the other thousand contingencies over which the physician can have no control, the patient is attacked with erysipelas or pyæmia, which spreads with frightful rapidity; and after bringing him to the brink of the grave he slowly recovers, but, to the doctor's infinite chagrin and disappointment, with a shortened limb, or with a stiffened joint. And now comes the trouble. It not infrequently happens that the patient who has received so much kindness and skilful attention, turns upon his benefactor, and rewards him by instituting against him a suit-at-law for alleged malpractice, laying his damages at many thousand dollars. What a monstrous wrong! What flagrant injustice! you will exclaim. So, indeed, it is; but so a jury will not always decide; and a ruinous verdict may be the termination of the unhappy affair. Gentlemen, let me tell you, this is no mere fancy sketch, but it has been realized, possibly, in the experience of some whom I now address.

Now, what is the remedy for this evil? Mere professional sympathy on the part of his medical brethren will not meet it. You cannot reach it by mere enactments of law. The only effectual method of relief, I believe, is to elevate the standard of medico-legal knowledge in the professions of both medicine and law. Let the physician fully understand his medico-legal rights, as well as the principles and practice of medical jurisprudence, and he need then have no fear to encounter such obstacles as we have been considering.

But there is another aspect of the case quite as practical, and quite as important to the medical practitioner, involving a knowledge of medical jurisprudence,—I mean his position and duties as a medical witness. Professor Guy very appropriately remarks that "as witnesses in courts of law medical men have duties to perform for which the ordinary practice of the profession affords no adequate preparation, and, until of late years, medical education no proper training, and medical literature no sufficient guidance." As has been aptly

remarked by another, "a man may be well qualified to practise medicine as a physician or surgeon, and yet find himself very deficient when called upon to act as a medical witness." A notable illustration of this is afforded in the person of the illustrious John Hunter. This distinguished anatomist and surgeon was called as a professional witness for the prisoner, in a certain memorable trial for poisoning with laurel-water. In the course of the cross-examination, the great man completely broke down; he was unable to give a satisfactory answer to the final question put by the court, whether the death proceeded from the poison, or from some other cause. Hunter candidly admitted his deficiency, although he suffered most acutely from the mortification entailed thereby; and we are told that he deeply regretted to the day of his death, that he had not given more attention to subjects of this nature.

I think we are now prepared to understand that the duties of the medical jurist are quite distinct from those of the mere physician or surgeon. While the latter looks only to the treatment of disease or accident, and the saving of life, the object of the former, in a large proportion of cases, is to aid the law in discovering the perpetrator of a crime, or in rescuing an innocent person from an unjust charge. For instance, a medical man is summoned to attend a person laboring under the effects of a fatal poison, criminally administered, but at the time he may have no suspicion of the fact. In spite of treatment, death ensues. Here the function of the practitioner ceases, while that of the medical witness begins. It is utterly impossible for him now to escape giving evidence, or to shift the responsibility upon another. The law will insist upon his appearance, first at the coroner's inquest, and afterwards at the assizes. Now, I assume that, as a regular licensed practitioner, he is fully competent to answer every question put to him in the court-room relative to the general properties and effects of poisons, the quantity of each required to destroy life, the time when they prove fatal, the post-mortem results, etc. Then, if it is objected that the death was caused by disease, and not by poison, the searching inquiry will be as to what diseases resemble poisons in their symptoms, effects, and post-mortem characters; and, lastly, the liability to fallacy in the chemical processes employed to detect the poison. This is only one of the many instances which illustrate the special duties of the medical jurist, and how they differ from those of the mere practitioner of medicine.

This leads me to recommend, as a matter of the greatest importance, the cultivation of the faculty of close and minute observation, on the part of those who wish to become proficient in this science. To observe well is one of the highest attainments in the medical art; but it is pre-eminently important to the medical jurist. Whenever he is summoned to a case, let him observe carefully and accurately *everything* around him, even the minutest circumstance. Nor let it be supposed that the cultivation of this habit of minute observation is at all incompatible with the highest professional character. No one ever doubted the skill and ability of Sir Astley Cooper as a surgeon, yet he cultivated this very habit to a remarkable degree; and, on a certain occasion, when he was summoned to visit a gentleman who was shot by a pistol-ball, this faculty was of signal service in enabling him to point out the murderer by a close observation of the direction of the ball, and the relative position of the injured man; and finally leading him to the conclusion that the weapon had been fired by a left-handed person.

I suppose there can hardly be a more embarrassing position for a medical man to occupy, than when for the first time he goes upon the witness-stand, to testify before a crowded court-room, in a capital case, and to deliver his *opinions* which may affect the awful issue of life or death to the prisoner at the bar. If summoned simply as an expert,—that is, to give his opinion on matters testified to by others,—his responsibility is, if anything, rather increased. But if he has first thoroughly studied the case, and scrupulously examined all sides of the question, and is master of the science of legal medicine, he need have no fear of the result, no matter how much he may feel annoyed and provoked by the attempts of a rude and blustering counsel, in the cross-examination, to intimidate him. Knowing that he has been sworn to tell the whole truth, and conscious of the desire *only* to bring out the truth, he will maintain a calm and dignified composure as a witness; he will not be betrayed into angry rejoinders to counsel, nor into an attempt to argue with him; he will

confine his answers strictly to the questions put to him, avoiding all prolixity, and all attempts to display his knowledge by haranguing the court and jury. He will not allow his temper to be ruffled (though if young in the business he will be sorely tempted), when questioned by a flippant counsel as to his professional abilities and opportunities, the number of cases he has attended, the mistakes he has made in his practice, and many other little matters calculated to vex and annoy him. Nothing makes a witness appear in a more ridiculous light, nor more prejudices his testimony before the court and jury, than the exhibition of a testy, irritable disposition when thus under fire. He should therefore most scrupulously guard against it.

I have already said that all his replies to counsel should be direct; they should never be evasive nor ambiguous, since this suggests a suspicion of either ignorance or dishonesty on his part. The answers should be given in a clear, audible tone of voice, and directed rather to the jury, inasmuch as they are specially interested in obtaining the information requisite to guide them in their verdict.

As a final suggestion, let me venture particularly to recommend the medical witness to avoid as far as practicable the use of all technical words or phrases. This is one of the most common and grievous faults to which he is exposed. From long habit of expressing himself before medical assemblies in technical and scientific language, he is led to employ, unconsciously, the same phraseology in the court-room, forgetful that neither the jury, court, nor counsel can possibly comprehend his learned utterances. How, think you, would an average jury understand his meaning, if, in describing a post-mortem operation on the head, he informed them that "he had reflected back the integuments and exposed the calvaria"? Would it not have been much plainer to them, and therefore much better for him, to have simply stated that "he turned back the scalp and exposed the skull"? How very few will know what he means when he talks about the "parietes of the abdomen," the "reflections of the peritoneum," the "os calcis" or "os femoris," the "dura mater," "pia mater," "corpus striatum," etc.? How far better to employ the simplest possible terms, and the plainest English, in describing what may be of the greatest importance for the jury to comprehend! Many of you have doubtless read of the laughable scene described by the late Professor Taylor as occurring in one of the English courts at a trial for assault and battery, where the medical witness, in giving his evidence in the case, informed the court that "in examining the prosecutor he found him suffering from a severe contusion of the integuments under the left orbit, with great extravasation of blood, and ecchymosis in the surrounding cellular tissue, which was in a tumefied state. There was also considerable abrasion of the cuticle." This magniloquent description for a time bewildered the court, until it was resolved by the judge himself into the simple words —*a black eye.* Surely, no man of sense need be told that all such affectation and pedantry are in the worst possible taste, and are calculated to bring the witness into deserved contempt.

I have thus, gentlemen, ventured to offer you a few hints of a practical character, which, it occurred to me, might possibly be of use to those members of your Society who have not as yet had much experience in medico-legal matters. To many of you, doubtless, my suggestions may have appeared somewhat trite; but I shall feel gratified if I have succeeded in inspiring even a few of your members with a more lively interest in the pursuit of medico-legal knowledge, and a stronger determination to enlist the sympathy and co-operation in our city of the two great professions of medicine and law.

ORIGINAL COMMUNICATIONS.

THE EXAMINATION OF URINE.

Remarks read before the West Philadelphia Medical Society, September 3, 1883,

BY CHARLES W. DULLES, M.D.,

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THE work of analyzing the urine, as described in the books and as practised when a complete investigation is desired, is elaborate, and calls for special apparatus, as well as for special skill in handling it. But that which is of most common utility demands nothing which every practitioner may not possess. The only apparatus needed is a urinometer, some litmus- and turmeric-paper, some acetic acid, a few test-tubes, means of applying

heat, a solution of caustic potash, a microscope, with slides and cover-glasses, and eyes to use them.

With these one may learn all that is ordinarily necessary about the specific gravity and reaction of the urine, the proportion of urates and phosphates, and the presence or absence of albumen and sugar, and of tube-casts or other deposits. Other points of investigation which are treated of in the books are of insignificant importance compared with these, and a knowledge of them is rarely demanded. What I mean to speak about this evening is nothing of this sort, but the best way to make a satisfactory examination of the urine for ordinary clinical purposes.

Specimen.—The first thing to be done, if one wishes to analyze the urine, is to get a proper specimen; and of all the steps towards one's goal none is of greater consequence than this. It will not do to say to a patient, "Send me a sample of your water." One must be more precise, or he may find, as I have done, carbonate of magnesia, or shreds of muscular tissue, or the yeast-fungus of beer, coming apparently from a healthy bladder. The sample must be unadulterated. To secure this, my plan is to order a clean bottle and clean cork to be gotten from the druggist, directly into the former of which the patient is to urinate, if a man. For women, I order, in addition, a chamber-pot to be washed clean with hot water and scoured dry with a clean cloth. Into this the patient, and no one else, is to pass her water, and then pour it into the clean bottle.

The time of getting the specimen is of some moment, too. The most typical sample will be made up half of the last urine before bedtime and half of that first passed in the morning.

Such a specimen should be labelled with something to indicate from whom it comes and when it was collected, and sent at once to the examiner. To let urine stand any length of time is to risk the reliability of the whole examination; for it may undergo the acid or the alkaline fermentation, and give results absolutely contradictory to those which it should.

Inquiry should always be made as to the amount of urine passed in twenty-four hours, as well as the frequency of urination by day and by night, and the amount passed at each time. Inquiry about the latter serves as an invaluable check upon errors in regard to the former, which are extremely common. Besides this, the answers often afford most useful hints as to the true significance of other facts ascertained in the ordinary examination.

One should never neglect to learn whether there is any local condition of the penis or urethra in men, such as balanitis, gonorrhœa, etc., or of the urethra, vagina, or uterus in women, such as caruncle, vaginitis, leucorrhœa, etc., which might supply a misleading element to otherwise normal or abnormal urine.

Thus provided with a proper specimen and forewarned if there be complicating elements present, the examination proper may be begun.

Method of Examination.—It is advisable, I think, to keep a little blank-book in the place where one usually examines urine, and to enter in it the details of each examination, not only for reference, but also in order to profit by accumulated experience.

Order of Examination.—Further, a certain order should always be observed, and not a desultory no-method. This order will naturally put first those points of investigation which require no apparatus, taking up afterwards those which require simple apparatus, and, finally, those where the apparatus is more complicated and where more time is demanded.

Thus, it is best to investigate and note—first:

A. THE PHYSICAL CHARACTERISTICS.

1. The amount passed daily.

2. The color,—its agreement with or deviation from the normal.

3. The clearness or turbidity, and whether the latter is uniform or flocculent.

4. The amount and character of the sediment when first seen.

5. The odor,—whether it is normal, faint, strong, fragrant, or offensive.

6. The reaction, and its degree, approximatively.

7. The specific gravity.

The last point requires the decanting of a sufficient quantity of the urine into a wide tube, and the use of the urinometer.

The lower part of the specimen should now be poured into a subsiding-glass, to await microscopical examination of its sediment.

The subsiding-glass ought not, in my opinion, to be conical, but one with perpendicular sides. I prefer and always use

a tall test-tube with a foot. This should be covered (I use a pill-box lid or a flat card), to keep out dust and other foreign matters, and set aside to be examined after twenty-four or forty-eight hours.

First Examination of Sediment.—My own practice is next to take the bottle from which the urine was poured, and, by shaking it round and striking the bottom on my hand, to get one more drop from it for immediate examination under the microscope. This sometimes reveals as much as the later examination, and often furnishes a check as to the formation or change of crystalline deposits.

In any case, one may now proceed to determine what is of most consequence in regard to—

B. THE CHEMICAL CHARACTERISTICS.

Of these I will consider here only four:

1. Urates.
2. Phosphates.
3. Albumen.
4. Sugar.

Urates.—Ordinarily an excess of urates is indicated by a high color, and a turbidity which is dispelled by heating. This may be confused, however, by the presence of albumen, which begins to be precipitated as the urates are dissolved by the application of heat. In such a case the urine may be tested by standing the vessel containing it in a cup of hot water, by which heat enough to dissolve the urates will be secured, but not enough to throw down the albumen. Another indication of excess of some member of the urea group is found in a high specific gravity, with absence of a large amount of sugar. Another is unmistakably gathered if the addition of acetic acid to a clear urine causes at once a fine whitish precipitate to be thrown down. A diminution of the proportion of urates is indicated by a very light color and a low specific gravity.

Phosphates.—The presence of an abnormal amount of phosphates in the urine is usually indicated by a pale color, and sometimes by turbidity. Any turbidity which is cleared up by adding enough acetic acid to give the urine a distinct acidity may be set down to the presence of phosphates. On the other hand, rendering the urine distinctly alkaline and warming it will cause a precipitation of phosphates. If this precipitate is light and finely flocculent, it is probably normal. It cannot be regarded as abnormal unless it falls densely or to a greater depth than a third of an inch in a test-tube three-quarters of an inch wide with two inches of urine in it. An abnormal diminution of the phosphates is indicated by a total absence of deposit, or by its being very small indeed.

Albumen.—The presence or absence of albumen may be determined by a variety of tests. Two of these are so superior in reliability to all others that I will mention them alone.

Nitric Acid Test.—The first is the "nitric acid" test. This is carried out by what is called "underlaying" the urine with strong nitric acid. This is usually done by pouring nitric acid down the inclined side of a test-tube containing urine, or urine down a tube containing nitric acid. A better way than either I have found to be the following: Pour urine to a depth of half an inch into a small test-tube; then take up about one-quarter fluidrachm of nitric acid in a long glass tube drawn to a tolerably fine point; close the top with a finger; pass the point down to the very bottom of the tube, and let the nitric acid descend slowly by rotating the glass tube under the finger and very gradually admitting the air. If the point of the tube be fine, the finger may be removed at once, and the descending column of acid, as in the preceding case, will lift the urine gently up, and an unbroken line of junction will be the result. This method of underlaying is the most delicate and most exact that I know of. If albumen be present, there will form at the line of junction between the acid and the urine a white, or whitish, layer of coagulation, the density and thickness of which indicate the proportion of albumen in the specimen. This test is liable to some confusion if the urine be turbid or much discolored, and also when there is present a large proportion of urates or carbonates. The former are sometimes precipitated as the urine becomes more acid, and form a cloud near the line of junction, which might deceive the unwary. But error may be avoided by observing that they form a *cloud*, and not a *layer*, and that they accumulate *above*, not at, the line of junction. The presence of an excess of carbonates will cause an effervescence, which may be violent enough to drive out all the contents of the test-tube.

Boiling Test.—The best test for albumen—all things being considered—is the "boiling" test. This may be applied by pouring a test-tube half full of urine, adding two or three drops of acetic acid, and boiling the mixture. If it becomes cloudy or opaque, albumen is present; if not, it is absent. The density of the coagulation, from a faint opaline clouding to absolute solidification, indicates the proportion from 1 : 1000 to 1 : 20. The latter proportion is about that of blood-serum: so it is easy to see how greatly exaggerated are statements that urine contained fifty or ninety per cent. of albumen.

Sugar.—Every sample of urine should be examined for sugar. Fortunately, saccharine diabetes is rare, but the possibility of its occurrence ought not to be overlooked. To find out whether it is present is among the easiest processes of chemical analysis. It requires no standard solution, no salt of copper, no bismuth, no yeast, only a solution of caustic potash, one part to eight parts of water, a test-tube, and heat.

Of the suspected urine a few inches in depth should be put into a test-tube, and half the quantity of the potash solution added and mixed. Heat is then to be applied, and, when the boiling-point is reached, if sugar be present the mixture will assume a darker hue, varying from light canary, which indicates the presence of one per cent., to black, which shows the presence of ten per cent. of sugar. While I am convinced that this test is as trustworthy as any I know of, and more trustworthy than many, yet its application, like that of other tests, has led me to think little of the indication of very small proportions of sugar, such as might be inferred from the canary color. For, either all the tests, except the fermentation test, react to other substances than sugar in the urine, or else sugar is present in small quantities in almost all urines. At any rate, a light canary-colored reaction with caustic potash is of very common occurrence.

With the investigation of these four constituents or ingredients of urine, all the chemical analysis that is of importance to the clinician will be finished. The tests for other substances, described in the books, have interest for the student of physiological chemistry, and occasionally furnish brilliant points for a lecture or paper. But the means of detecting and estimating carbonates, sulphates, indican, bile-pigment, biliary acids, and even urea, will have to be made much more simple and much more exact before they can furnish much better information than any intelligent practitioner can gather without their help.

There remains, after the steps described, nothing to be done but to wait twenty-four hours for the sediment to fall, and then to determine the—

C. MICROSCOPICAL CHARACTERISTICS.

This procedure is to many practitioners impossible, because they have not the necessary apparatus. To others it may be of little value, or even delusive, because they have not the experience necessary to make it trustworthy in their hands. But it is in many respects the most important part of the whole examination. Indeed, it is an indispensable part.

Unfortunately, almost nothing can be said about it which can take the place of actual demonstration and long practice, although much can be learned by studying well-made plates of urinary sediment: the best of which, that I know of, being contained in the excellent Atlas of Ultzmann and Hofmann, published in Vienna, in 1871.

But a few hints drawn from my own experience may not be out of place here.

In cases where there is a dense deposit of urates entangled in mucus, it is well to let the urine stand for a few minutes in hot water, or to let it settle in a very warm place. Keeping the urine acid will prevent confusion on account of dense precipitates of phosphates; when they form, a few drops of acetic acid will clear them up without destroying other deposits. In every case where there is a dense deposit it is important to examine a drop drawn up with a pointed glass tube from several levels,—the lowest, the top, and the middle. After this, it is well to pour off all the supernatant urine, to shake the residuum up, and to examine a drop of this. When there is a well-marked nubecula, I think it important to examine a drop from just above it, as well as several from the bottom of the tube.

Some errors may be avoided by bearing in mind that fibrilli of mucus may look like hyaline casts, and that they may be distinguished from these by their very great length. To detect this often requires very careful focussing, by which they can

be followed across the field of the microscope and recognized by their general appearance, as well as by the length alluded to. When such fibrils are encrusted with urates, one must be especially on the lookout not to mistake them for casts. It is well to be on one's guard also against the appearance of flat epithelium seen on edge. This sometimes looks astonishingly like hyaline casts, but may be recognized upon slightly moving the cover-glass, or by excluding the idea of hyaline casts from their solitary appearance among easily-recognized epithelial scales.

Another practical point, upon which I would lay stress, is to examine the urine on the slide round the edge of the cover-glass, and not that only which is under it. Not infrequently an investigation which revealed nothing so long as only the latter was searched will prove very instructive as soon as the former is studied. For suggestive deposits are sometimes washed away from under the cover when it is allowed to fall upon the slide.

In concluding this part of our study, I will give a schedule for examining a specimen of urine, which includes the steps already given in detail.

SCHEDULE FOR AN EXAMINATION OF URINE.

A. PHYSICAL EXAMINATION.

Note 1. Amount passed in twenty-four hours.
2. Color.
3. Transparency or turbidity.
4. First sediment,—amount and character.
5. Odor.
6. Reaction.

Pour off upper part into a tall, broad test-tube or urinometer tube, and shake up lower part and pour into a tall subsiding-glass, cover it, and reserve for microscopical investigation after twenty-four hours.

Note 7. Specific gravity.

B. CHEMICAL EXAMINATION.

Pour about two fluidrachms into a test-tube, and

1. Add a few drops of acetic acid. (If the urine be alkaline, enough must be added to make it distinctly acid.)

If sample was clear and remains so: no inference.

If sample was clear and becomes cloudy: excess of urates.

If sample was cloudy and remains so: excess of urates.

If sample was cloudy and becomes clear: excess of phosphates.

2. Heat slowly until it boils.

If sample was clear and remains so: *no* albumen.

If sample was clear and becomes cloudy: *albumen is proved.*

If sample was cloudy and remains so: probably due to bacteria.

If sample was cloudy and becomes clear: excess of urates *proved.*

3. Add to sample, while warm, half its bulk of solution of potash.

If sample was clear and remains so: phosphates are diminished.

If sample was clear and becomes flocculent: due to phosphates.

If sample was cloudy and remains so: bacteria or foreign matters.

If sample was cloudy and becomes clear: due to redissolving of albumen.

4. Heat again at top.

If a canary or rum or brown or black color appear, it shows sugar.

C. MICROSCOPICAL EXAMINATION.

Examining a drop of the sediment left after decanting the urine from its bottle will often show all that a later examination reveals, and it ought to be tried. But in every case, after allowing a portion to stand for twenty-four hours, several drops in succession, from different levels of the sediment, should be carefully examined, and a note made of the result. A note should always be made of the reaction of the urine at the time when a microscopical examination is made.

We now come to another part of our subject, — namely, some points to be borne in mind in drawing clinical conclusions from an examination of the urine.

I think experience will warrant a modification of certain views not uncommonly held in regard to what is to be regarded as normal or abnormal in urine. The *amount* passed daily, for example, is usually set down in the books as about three pints, with a caution, it is true, that this is subject to variations. But this does not convey any adequate idea of the amount of variation which may exist without harm to the health. Now, this variation may range from one pint to many. The former is rare, and to be regarded with composure perhaps only in persons whose vegetative functions are very inactive,—as the old and

spare, for example,—or when the skin or bowels are very active; but its possibility is not to be overlooked in the zeal to detect morbid phenomena.

The latter—a large excretion of urine—is very common, and I am convinced that the amount normally excreted by healthy men is nearer five pints than three. In any case, one thing is quite clear to me,—viz., that the fixing of a given quantity as the average amount of urine to be excreted in health is utterly delusive, and that no more can be assuredly said about this than that the persistent excretion of very small or very large quantities should excite suspicion and investigation to learn whether the cause be consistent with health or not.

Another point is that the *specific gravity* of healthy urine cannot be set down as being 1.020, if thereby there be the faintest implication that a departure from this—even a wide departure—is to be regarded as abnormal. That the contrary is the case I have satisfied myself by a large number of tests made in the past eight years, so that I know that a range from 1.004 to 1.040 is within healthy limits. The low figures accompany free discharge of urine, with the use of succulent food and large quantities of fluids. The high figures are found in summer-time when the perspiration is great, or at any time when the food is dry and the action of the skin or bowels is vigorous.

The point I would make in regard to this, without disparaging the value of an arbitrary standard for comparison, is that the varying specific gravities of urine have little diagnostic value, except when made significant by some other features. Thus, there can be no question of the indications of rising or falling figures when it is known that sugar is present in abnormal quantity or when a Bright's disease is present. But I know no other morbid states in which the figures of the urinometer disclose anything of importance which cannot be learned otherwise.

Another physical characteristic of urine is the *reaction of* urine. This is said to be faintly acid, with occasional faint alkalinity due to ingesta. In my own experience, I have found faint alkalinity very common. It has usually been observed in persons of low physical tone, but I do not regard it as of much consequence unless accompanying some more tangible evidence of renal or bladder disorder. Strong alkalinity of freshly-passed urine is quite another thing, of course.

Strong acidity of the urine is not uncommon, and it sometimes indicates danger. It should always lead to a microscopical examination, to discover whether crystals of uric acid, the commonest origin of stone in the kidneys or bladder, are to be found.

The *color* of the urine is subject to somewhat the same influences as the specific gravity, rising and falling with this. But, in general, as is well known, a high color is indicative of rapid tissue-metamorphosis, and a low color of the reverse. The former is found in acute systemic disorders, the latter in chronic troubles. Pale urines generally grow paler, and high-colored urines more high-colored, after standing.

Of the *odor* the same may be said. Peculiar odors are often due to ingesta, as, for example, asparagus or turpentine. A fetid odor when the urine has just been passed is usually indicative of cystitis.

The significance of *urinary sediments* is to be clearly understood only after a microscopical examination. But all are familiar with the common brick-dust deposit of concentrated urines. The nubecula, which consists of mucus, and which forms in healthy urine after it stands a few hours, often misleads patients, but, of course, would not mislead a physician. But there is a peculiar sediment found in cases of cystitis, especially where this is set up by a stone in the bladder, which is almost pathognomonic. This is a slimy mass, which, on pouring, leaves the vessel very much as the white of an egg leaves its shell, sliding off in a soft but coherent mass.

The proportion of *urates* contained in any sample must be estimated in connection with all the other circumstances of the case. From my own experience, I should say that this is usually only confirmatory of a diagnosis made without its help. Thus, in acute fevers, in disorders of the liver, in heart-disease, one has probably already learned what is straining the excretory powers of the kidneys before the excess of urates is discovered.

As to an excess of *phosphates*, I believe its discovery never discloses any new feature of a case. When it is found, one has ordinarily abundant other evidence of the weak constitution or nervous strain of his patient, and ordinarily the physician examines for phosphates, in order to gratify the natural desire to see with his eyes what

is usually looked upon as the excretion of wasted brain- and nerve-tissue. A diminution of phosphates is compatible with perfect health, and has no important significance, taken by itself.

The presence of *albumen* in urine is quite another matter. Except in very minute proportions and at intervals, albumen indicates organic change in some part of the urinary apparatus. Any condition which adds pus or blood to the urine will be accompanied by the presence of albumen. Such a condition may exist in the urethra, the bladder, the ureter, the pelvis of the kidney or its tubules or parenchyma. Which of these is involved, the microscope and a rigid general examination of the patient alone can determine. The same is true of albuminuria due to nephritis. Here the microscope alone can determine what is the nature of the change, and whether it is acute or chronic. The chemical discovery of albumen should in every instance be followed by a careful microscopical examination. To neglect this is to commit an error which might lead to irreparable harm.

The detection of very small quantities of sugar in the urine is, as has been stated, a common experience, and may be taken too seriously. If it does not increase, and if the specific gravity of the urine be moderate, it may be regarded as of no unfavorable clinical significance. But when the specific gravity is high and the other evidences of glycosuria are present, of course it is important, and cannot be watched too carefully.

Finally, as to *urinary sediments*. These are the real and infallible proofs of what is going on in the genito-urinary organs. Each means a definite thing, and its presence or absence gives assurance as to the state or condition of the urinary apparatus in a way that nothing else can do. I have not time to go into details, in addition to those already given under the heading "*Microscopical Characteristics*," —this is the province of the text-books,— but I cannot leave the subject without emphasizing again their great importance.

Thus, gentlemen, I have tried to indicate, in the first place, the simplicity of the process of examining urine in a way perfectly satisfactory for clinical purposes, and to show how little it demands complicated apparatus, how entirely it is within the command of every medical man.

In the second place, I have tried to point out a few points, deduced from experience, which I think may profitably be borne in mind in estimating the significance to be attached to what may be discovered in the course of a physical, chemical, and microscopical examination.

In conclusion, I will give a list of the apparatus required for such an examination as has been described:

Some test-paper.
A urinometer.
A test-tube.
A sediment-glass.
Acetic acid.
Solution of caustic potash. (One part to eight of water.)
A spirit-lamp.
A pointed glass tube.
A microscope, slides, and cover-glasses.

It will be found convenient to keep a blank-book for records in one's laboratory, and to have tacked up against the wall a card on which is written the following, to help to secure order and system in one's examinations:

1. Amount.
2. Color.
3. Clearness.
4. Sediment.
5. Odor.
6. Reaction.
7. Specific gravity.
8. Urates.
9. Phosphates.
10. Albumen.
11. Sugar.
12. Deposits.

I take the liberty of recommending such simple matters to others, only because I have found them helpful to myself.

REPORT ON THE PROGRESS OF DERMATOLOGY.

BY ARTHUR VAN HARLINGEN, M.D.,
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EPITHELIOMA.

MM. BLUM and Duval (*Arch. Gén. de Méd.*, Aôut, 1883), after carefully studying the various statements made by authors as to the nature of epithelioma (*cancroïde de la peau*), give their opinion that the study of this affection must be undertaken anew and from the foundation. Heretofore, epithelioma of the skin has been considered as a morbid entity subdivided into several varieties according to

the predominance of one or another constituent element. It is necessary now to study the modifications which may be impressed upon it by its situation, or by the nature of the elements in which it is developed. Certain forms of epithelioma are exclusively seated in the upper part of the face. Certain others, presenting characteristic features, are found on the back of the hand. The latter are rare. Gurlt encountered only eight cases in one thousand three hundred and seventy-seven cases of epithelioma.

Epithelioma of the hand is rarely met with except between the ages of sixty and eighty. It usually occurs in the site of an old scar, though it may develop rapidly in a recent cicatrix. A case illustrative of this is given by the authors, accompanied by a wood-cut.

Aside from their etiology, epitheliomata of the hand may show marked peculiarities in development. A case, with illustrative wood-cut and several pictures of microscopic sections of the growth, given by the authors, illustrates this. Here cicatrization of a spontaneous character took place in the centre of the tumor. Their conclusions show that the origin of the epithelial tumor in the case examined was only in the inter-papillary portions of the rete Malpighii. The hair follicles, sebaceous and sweat glands did not take any part in the new formation. Some of them, however, were deformed by the outside pressure of the growth.

The retrogression of the elements of the tumor was due to an inflammatory process of the derm, or to a formation of cicatricial connective tissue which surrounded and strangled the lobules of the tumor and caused resorption.

The authors conclude—1. That epitheliomata present multiple clinical varieties, the gravity of which depends on their seat and mode of evolution rather than upon their histological structure. 2. They are susceptible (under rare and exceptional conditions, it is true) of spontaneous cure over a greater or less area. The attentive study of such cases may perhaps serve as a guide to the rational treatment of these tumors.

THE NATURE AND TREATMENT OF LUPUS.

In a very important article published in the *Annales de Derm. et de Syph.*, August, 1883, Besnier, the distinguished head of modern French dermatology, gives a full review of our present knowledge of the pathology and treatment of lupus.

In his opinion, lupus is in the strictest sense a scrofuloderm. All patients who have lupus are scrofulous or scrofulo-tuberculous. The arguments which have been brought forward to controvert this theory are as follows: 1. Lupus is not hereditary. 2. The symptomatology of lupus differs from that of tuberculosis (properly so called) of the skin or mucous membrane. 3. Lupus does not lead to tuberculosis. 4. Experiments upon animals show that lupus is not inoculable locally or by infection.

Besnier examines each one of these propositions in order to disprove them. As to the first, he says that the fact that lupus is not hereditary is the best proof of the local character of tuberculosis in its beginning. He has often seen patients with lupus become tuberculous, but he has never seen a confirmed tuberculous patient develop lupus.

As to the symptomatology of lupus differing from that of tuberculosis, if this were not the case why should they have received separate names? Are there not varieties of pulmonary consumption, each with its symptoms peculiar to itself? Are there not, indeed, varieties of lupus, from the benign patch on the surface of the cheek to the rapidly-eroding serpiginous varieties?

To say that lupus does not lead to phthisis is to repeat a legend which has been handed down from generation to generation, but which has no basis in fact. So far from it, modern dermatological authorities unite in admitting pulmonary phthisis as a complication of lupus to be feared. The time to state the exact proportion of lupus patients who suffer from phthisis has not come; but, turning to his own wards, Besnier finds that of thirty-eight cases of lupus, seen in June and July of the current year, no fewer than eight, or twenty-one per cent., showed physical signs of pulmonary consumption.

Finally, experiments lately made in animals go to show that inoculation with lupus-matter in animals may give rise to tuberculosis.

Lupus, therefore, in Besnier's view, being a local tuberculosis, and liable to lead to a general infection of the skin, its prompt and thorough treatment becomes a matter of paramount importance.

With regard to general treatment, the

health of lupus patients may and should be improved by tonics, etc., but these cannot be relied upon to affect the lupus itself in any direct way. Cod-liver oil has been recommended by some authorities, but long-continued experience shows that it has no influence on the disease. It is the same with regard to iodine, iodide of starch, iodoform, and iodide of potassium. Sulphur and arsenic may affect the general health favorably, especially when used in the natural mineral waters, but neither these nor any other internal agents can have a specific effect on the lupus.

The simple local medication of lupus may be of three kinds,—antiphlogistic or emollient, discutient, substitutive. The first, including vapor-baths, starch poultices, etc., have, of course, no action on the course of the disease, though they may be useful adjuvants. The discutients, as mercurial plaster, tincture of iodine, etc., may have in some few cases a temporary and apparent beneficial effect, but are rarely useful even in a temporary way. The substitutive irritants act just as an attack of erysipelas may act in exciting a frank inflammation, which seems to carry off with it a certain amount of morbid growth. Besnier has, indeed, never seen a case of lupus benefited by an attack of erysipelas. Repeated vesication represents the class of agents here discussed, and this, the best of all, has but little effect on lupus. The preparations of iodine and mercury, so long employed, should be entirely set aside. Used inefficiently, they give rise to much pain and annoyance; used thoroughly, they cause deep, irregular, unmanageable cicatrices, in the midst of which the lupus-growth makes its appearance again.

The surgical methods employed in the treatment of lupus are of three kinds,—extirpation, scraping, scarification. Of these, the latter is certainly the most simple and complete when it can be employed with propriety. The extent of the disease, and, still more, its seat so often on the face, nose, lips, etc., will, however, frequently forbid such operations, and even when they can conveniently be performed a cicatrix is left behind, often vicious, and in which occasionally the disease makes its appearance again. A somewhat similar objection is given by Besnier against the use of the curette for scraping. If the scraping is done thoroughly it is almost as bad as cutting the lupus out, while, unless it is done thoroughly, relapses are pretty sure to take place. Acupuncture, multiple scarifications with needles or small knives, or "dilaceration," as Besnier terms the operation, is in his opinion the best of these surgical operations. The incisions are made in close proximity and to a depth corresponding to that of the growth to be operated upon. They should in some cases be crossed by a series of others, so as to make lines like shading in a pen-and-ink sketch. The chief objection to this procedure is that it must be repeated so frequently in order to remove the growth thoroughly. Small patches are seen to be left, and these must be gone over again and again.

The addition of caustics, as in the injection of solution of chloride of zinc, etc., by means of a hypodermic syringe, whereby a drop of solution is placed under the skin at one point and another, is a painful and not a particularly useful method. In one case where solution of perchloride of iron was used a cure resulted, but the skin was tattooed with indelible iron-stains.

The chemical caustics *en masse*, as caustic potash and arsenic, Besnier condemns without reserve. Arsenic is highly dangerous.

Theoretically the actual cautery is the best method of treatment, and indeed this is recommended by many authorities, but Besnier rejects it because of the extensive and useless destruction of tissue, because it necessitates the use of general anæsthesia, and because the process of cicatrization must be followed up and directed by means of repeated cauterizations with nitrate of silver.

The form of treatment preferred by Besnier, and indeed now used by him to the exclusion of all others, is what he calls "interstitial," punctate or linear cauterization with the thermo-cautery or galvano-cautery. The advantages possessed by this method are that the amount of destruction of tissue can easily be regulated, that healing takes place rapidly, and that there is no danger of spreading the disease by the operation itself, which Besnier thinks possible in any cutting operation for the relief of lupus.

The thermo-cautery, which is now within reach of all practitioners, can fill all ordinary indications in the treatment of lupus, but the galvano-cautery is more generally useful, because the knives and points can be made of all desirable sizes and shapes

to fill every indication. Besnier figures no less than nineteen different shapes which he makes use of from time to time. The battery he employs is a bichromate battery, the intensity of action being regulated by an assistant. The platinum points are only heated to a red heat. The difference of sensation where healthy tissues are reached enables the extent of action to be carefully regulated. The after-treatment is perfectly simple : a little powdered starch or a water dressing is all that is required.

A NEW LOCAL APPLICATION IN PSORIASIS.

Auspitz (*Wiener Med. Wochens.*, Nos. 30 and 31, 1883), considering the various methods of external application in psoriasis as inefficient in some particulars, has devised a mixture of chrysarobin and "traumaticin," the liquor gutta-perchæ of our Pharmacopœia. The advantage of this preparation is that the chrysarobin cannot be rubbed off on the clothes or spread about on the healthy skin, but remains in the place where it has been painted for several days.

The method of using it is as follows. The scales are to be removed as completely as possible by means of a hot bath with soap, after which the solution of chrysarobin (ten per cent.) in liquor gutta-perchæ is to be rubbed into the patches with a brush, the bristles of which have been cut short so as to allow a certain amount of friction to be employed. The pencilling and rubbing with the solution is to be repeated daily, the crusts being removed by soap and water every two or three days if they accumulate. Five to ten days usually suffice to remove the patches completely.

FEIGNED SKIN DISEASES

Two interesting cases have recently been reported. Dr. I. B. Fortner (*Lancet*, August 25) gives the case of an unmarried woman 25 years of age, who applied for the relief of a supposed loss of power in the thumb, probably hysterical. Shortly after coming under observation, certain peculiar lesions showed themselves on the back of the right hand and wrist, consisting of four oval abrasions, three-quarters of an inch in length by one-quarter broad, and presenting the appearance of a blister from which the cuticle had been removed, leaving a raw surface bathed in serum. Zinc oxide ointment was applied and the limb securely strapped and bandaged, when the sores quickly healed. New ones appearing a little later, Dr. Fortner, suspecting the artificial character of the lesions, took occasion to rub a stick of lunar caustic over each abrasion until considerable pain resulted. This acted as a deterrent, and no more sores appeared. Seven months later, however, the patient returned with the same lesions. She belonged to a markedly neurotic family, and Dr. Fortner very properly reached the conclusion that the lesions had been artificially produced, probably to create sympathy.

A second case was reported by Dr. Murrell (*Lancet*, vol. ii., 1883, p. 447). A young girl of 14, subject to fits, showed certain lesions which had appeared on and off for a year previously, breaking out immediately after the nervous phenomena called "fits." According to the history given, the arms and legs alone had been affected, the eruption coming on in the night, and the lesions presenting, when examined, the appearance of blisters or burns, and taking a long time to heal. Of late "bladdery heads" had formed full of water, and these burst leaving sores. On examination, several elongated patches like recently-healed blisters, one and a half inches long by one-half inch broad, could be seen on the arms and legs and under the mammary region. Although when taxed by the examining physician the patient persistently denied having produced the lesions upon herself, yet there seemed no doubt that the lesions were artificial and self-made.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SERVICE OF PROF. H. C. WOOD.

Reported by LOUIS J. LAUTENBACH, M.D.

A CASE OF EPILEPTIFORM NIGHTMARE.

THE first case which we have to-day is a very extraordinary one. The gentleman who is the subject of our study was formerly in the United States Signal Corps. While on duty he began to have some dyspeptic symptoms, with a sense of terror at night, and disturbed sleep. He first began to have spells two years ago, which have continued ever since. They have never occurred when he was awake, but have been nocturnal from the beginning. The spell begins with a scream,

which is described by those who have heard it as something unearthly in tone and violence. Indeed, since he has been here in the ward he has waked up patients who are even in the farthest part of the building. The scream is repeated two or three times, and then he begins to work his limbs with the utmost violence. The movements appear to be, to some extent, purposive. (If the character of the movements are such that the individual the subject of the attack gets up and throws his arms around an attendant, so that the involuntary acts are directed apparently with a definite purpose, we say that the movements are purposive.) We do not find the tongue bitten, nor does he wet the bed. He tries to spring out of bed. He strikes around violently, and has thus seriously injured himself as well as his attendants.

This morning he had an attack while asleep in a chair. He sprang forward, and would have plunged into the fire had not an attendant caught him. Every night he has at least one of these attacks, sometimes two or three. After the attack he is left in a condition of exhaustion, and the next day he is nervous and unable to work. It is a very serious case. He has been under Dr. Hammond's care, as well as that of other neurologists, without any benefit.

The first thing to make out in this case is the diagnosis; and the first question which presents itself is as to whether he is suffering from epilepsy or not, and this question must be studied very carefully before we can hope to come to any conclusion. The fact that the attacks came on after the age at which epilepsy usually develops is a grain of evidence against its being epilepsy. Then the movements appear to be purposive, and are not simple convulsions, and then, again, he does not bite the tongue, and there is no tendency to deep sleep after the attack; so that in all these respects the attack does not agree with pure epilepsy; yet you probably know that sometimes you have epileptic paroxysms in which active purposive movements occur. The case of a master-builder, related by Trousseau, who, when he was seized with an epileptic attack while at his work on a high building, would pass safely over the most dangerous places, affords a remarkable example of this.

Leaving now epilepsy, we will endeavor to find what it would be if it were not epilepsy. We are now brought face to face with nightmare and somnambulism. In these conditions the eyes are sometimes open and sometimes shut, but are usually open. The patients rise, go down-stairs, and do various actions which are utterly outside of consciousness and about which the next day they have no recollection at all. They walk and act while consciousness is suspended. There is a definite relation existing between dreams and this nightmare. A horrible dream may so act on the lower centres of the brain that it may eventuate in action, or it may simply exhaust itself as a dream. Terror in these conditions always plays an important part. As the result of stimulation of the lower motor centres we may have either noises or the ordinary nightmare.

I remember that, when I was a medical student, near me there was a man in danger of secondary hemorrhage as a result of an operation. As there was no doctor near, they had orders to send for me if anything should occur. During the night I had the idea that a man was under the window calling me, saying that the patient was bleeding to death, while I, who should have been of so much help, was unable to get out of bed because I was paralyzed.

In these conditions a moment seems like an eternity. A man may think he is passing through weeks of horrible suffering, when he has been asleep but a few seconds.

As nightmare usually occurs, it is not of much moment. In the severer forms in children we have what are termed night terrors. The child wakes with a cry and is seized with various phantasies, which usually take the form of some horrible creature about to carry the child away, or of some monster injuring the child's friends. While this is occurring, if it be spoken to, although it may gaze at the speaker no comprehension of the meaning of what was said enters the child, but it will continue its vacant stare. If, however, the child be thoroughly roused, it will probably cry for a short time, so natural has the delusion appeared. The condition is one of horrible semi-consciousness, and it is usually from fifteen minutes to half an hour till the child can be appeased. Usually, when the subject of a nightmare is awakened, his mind is perfectly clear, except that he cannot believe that what he saw had not actually occurred.

A dream with automatic action is called

somnambulism; with terror, with or without automatic action, nightmare. In nightmare there is always some horrible impending evil with which the subject is unable to combat. He feels as if he were destitute of the use of his muscles. Whether this case be one of epilepsy or not, it is always of more or less serious import and is by no means to be viewed as trifling. There have been cases where the ordinary nightmare has been the cause of destruction of a man's life. There is a medical teacher under my charge now who has such fearful dreams that he dreads to go to bed. If a man has the nightmare, the nightmare dominates the man's life. Everything is centred to avoid the terror and suffering it brings with it. Wealthy men who are the subjects of nightmare usually have an attendant who watches over them at night, and the moment the nightmare comes on wakes the patient; and yet the patient will protest that he has been under the influence of the terrors for quite a length of time,—in fact, will frequently not believe the attendant that he was awakened the moment the nightmare appeared.

Whether this case be one of epilepsy or some one of these forms of nocturnal disturbance which are somewhat related to it, but which in some particulars are sharply defined from it, remains for us to determine.

I hardly think that we can call it nocturnal epilepsy, but that it must be placed near the ordinary nightmare of children. Against epilepsy we have the age; there is no incontinence of urine at night; there is no biting of the tongue; there are no epileptic attacks unless asleep; the movements are to a certain extent purposive. The scream of epilepsy is rarely repeated; one unearthly, demoniacal scream circles about, filling all space, and then ends in silence. This man's scream is only hushed for a moment to break forth anew. This condition is an attendant rather of nightmare than epilepsy. The other day he said that he had no remembrance of dreams, but he now says that he has a troubled, confused sense of ugly dreams. He has never had any of the attacks except during sleep. The other day, the moment the scream was over the attendant spoke sharply to the man, and he immediately roused up.

I think the case one of nightmare due to a peculiar condition of the brain, of whose pathology we may speculate, but of which we know absolutely nothing. This view of the case has been confirmed to a certain extent by the result of treatment. He has taken large doses of the bromide, and has become steadily worse under its influence. He has also been treated with large doses of arsenic, which seemed to do no good. Nothing has ever done him any good, although he has been under skilful treatment. We tried here in the hospital chloral in twenty-five-grain doses, but it had no effect on the prevalence of the attacks.

When we come to the treatment of nightmare in the child we must attend to the hygiene, get the health to the highest possible point, and then see that the child eats a light supper. Unless the supper partaken of be light, the rest is broken and disturbed, and dreams are produced by the heavily-loaded stomach.

We have also noticed that frequently a sudden shock, such as a cold douche given while the patient was under the influence of the nightmare, has broken up the habit. Cases of obstinate somnambulism are almost as trying as this man's case. Many cases of fractures have occurred from these patients falling from a height; almost invariably this has cured the habit. Sometimes the habit of the nervous system has been successfully broken up by placing a bath-tub full of very cold water so that when he gets out of bed he falls into the cold water. In this man's case we will try the effect of this treatment.

For the benefit of the attendants and of the residents, we will leave him sleep in the daytime and keep him awake at night. For about six hours preceding his sleeping hours he will not be allowed any food. The moment the attack comes on he will be soused with ice-water, in the hope that it will stop the attack and that possibly it may break up the habit permanently.

Why one is more prone to have the nightmare when lying on the back than when asleep otherwise is not known. The moment the position on the back was assumed he has been moved by the attendants on the side. They say that he has not had the attacks so frequently as before. He, himself, does not think that he would have the attacks as hard if he could sleep all night through on his side. He should get a case for himself. He should get a first-class coffin constructed of two boards,

one to press on his back and the other for the front part of the body, so that it will be impossible for him to get on the back. As you know, the attack which he had this morning came on while he was sitting up, so that I do not anticipate that he will derive very much benefit from lying on his side. It will certainly not cure him absolutely.

As to the medical treatment, I hardly know what to give the man, as he has tried the bromide of potassium, chloral, and arsenic, without benefit.

In all these obscure cases you should have the passages from the bowels watched, as occasionally you find the cause of the trouble to be rectal irritation by a parasite. I remember a physician who was treated for mastoid pains, where he was cut and blistered, the periosteum scraped, and there was talk of trephining. Finally he came to me. I had his stools examined, and found that he had tape-worm. The parasite was gotten rid of, and the mastoid pains were cured. Such cases do not occur often, but only occasionally.

To sleep during the day and to be watched constantly, to be well douched the moment there is evidence of the paroxysm, to be careful about food, not to eat anything within six hours of his bedtime, to have his passages watched,—this is briefly the outline of the treatment.

TRANSLATIONS.

THE LOCALIZATION OF MOTOR LESIONS IN THE CEREBRAL CORTEX.—From a careful analysis of a long series of clinical cases Messrs. Charcot and Pitrès draw the following conclusions as to the production of motor lesions in disease of the cerebral cortex in man:

1. All the cortical lesions of the cerebral hemispheres in man do not give rise to disturbances of voluntary motion. In this special point of view the cerebral cortex may be divided into two distinct districts,—the *non-motor zone*, whose destruction never produces permanent paralysis, and the *motor zone*, in which destructive lesions always produce permanent paralysis on the opposite side of the body.

2. The non-motor zone includes—1, all the pre-frontal region of the brain (orbital lobe and first, second, and third frontal convolutions); 2, the entire occipito-parietal region (the occipital lobe and the superior and inferior parietal lobules); and, 3, all the temporo-sphenoidal lobe.

3. The motor zone includes solely the frontal and ascending parietal convolutions and the paracentral lobule.

4. Paralyses produced by destructive cortical lesions have different clinical characteristics according to the seat and extent of the lesions. Total hemiplegias of cortical origin are produced by extensive lesions of the ascending convolutions; partial palsies are produced by limited destruction of the same localities.

Among these partial paralyses, or monoplegias, the following may be recognized: *a.* Brachio-facial monoplegias, which coincide with lesions of the inferior half of the ascending convolutions; *b.* Brachio-crural monoplegias, depending upon lesions of the upper half of the ascending convolutions; *c.* Facial and lingual monoplegias, which depend upon very limited lesions of the inferior extremity of the motor zone, and particularly of the ascending frontal; *d.* Brachial monoplegias depend upon very limited lesions of the middle portion of the motor zone, particularly of the middle third of the ascending frontal; *e.* Crural monoplegias depend upon very limited lesions of the paracentral lobule.

5. Whether total or partial, paralyses produced by destructive cortical lesions are permanent, and, after a certain time, are accompanied by secondary *contracture* of the palsied muscles and descending degeneration of the pyramidal strands.

6. Irritative lesions of the cortex may cause epileptiform convulsions (partial, Jacksonian, or cortical epilepsy). Such convulsions may be very readily distinguished from true epilepsy, as they originate with a motor aura, and may be either general or confined to one-half the body (hemispasm) or to a single group of muscles (monospasm).

7. As a rule, lesions capable of producing epileptiform convulsions are situated in the neighborhood of that cortical region whose destruction would produce paralysis in the muscles first affected. The causative lesions may, however, be found either in the motor or the non-motor zone, and no such definite relation between the character of the epilepsy and the location of the cortical lesion can be fixed as exists between paralyses of cortical origin and the lesions producing them.

8. The history of motor localizations in man is founded upon the comparison of many hundreds of concordant and careful observations. There is not one of the facts regarded as opposed to the doctrine of cerebral localization but is open to criticism; there is not a single opposing fact capable of demonstration. All the observations reported as disproving the fact of localization are unreliable, either on account of the complex nature of the lesion (multiple lesions, effusions, tumors, etc.) or because unaccompanied by sufficient details.—*Revue de Médecine*, October 10, 1883.

THE PERCENTAGE OF CHLOROFORM IN THE BLOOD OF AN ANÆSTHETIZED ANIMAL.—MM. Grébaut and Quinquand have determined the percentage of chloroform in the blood of an animal narcotized by that agent, by distilling in vacuo the chloroform from the blood, and then determining its percentage by the power possessed by the chloroform of reducing the cupropotassic test, in the same way as the percentage of sugar is determined in a liquid, it having been found that 18.7 C.c. of a solution containing 0.005 grm. of chloroform will reduce 0.3 C.c. of Barreswil's solution.

In seven experiments conducted after this method they found that the average quantity of chloroform present was 1 grm. for every 2000 C.c. of blood, the actual figures ranging from 1800 to 2181 C.c. From this they conclude that the anæsthetic dose of chloroform is 1 grm. of chloroform for every two litres of blood, or $\frac{1}{2000}$.

Other analyses have shown that the fatal dose of chloroform is extremely near to the anæsthetic dose,—an additional fact pointing to the danger of employing chloroform as an anæsthetic agent.—*La France Médicale*, October 13, 1883.

THE USE OF ATROPINE IN CORYZA.—The power possessed by atropine of diminishing the secretion of the nasal mucous membrane led Gentilhomme to employ it in acute coryza. In several severe cases, characterized by profuse secretion, fever, and difficulty of breathing, which in one case closely resembled asthma, one-half milligram of atropine given in pill form served to arrest the disease entirely. When the disease has passed through the acute stage, its administration improves the general condition, but its effect is not as striking as when given in the acute stage. Lublinski also reports decided improvement resulting from the administration of one milligram of the sulphate of atropine at the onset of acute coryza, and the duration of the disease appears to be considerably reduced by the administration two or three times daily of one-half to one milligram. In chronic nasal catarrh, however, he could not find any improvement resulting from this treatment.—*Deutsche Med. Zeit.*, October 11, 1883.

THE PATHOGENIC IMPORT OF TUBERCLE-BACILLI.—After a series of culture and inoculation experiments, made in conjunction with Dr. Arndt, in Königsberg, Dr. P. Baumgarten concludes that it is the peculiar bacteria discovered by Dr. Koch and himself which call the tubercular process into existence. If it be urged that the contagion does not exist in the bacilli but is simply associated with them, he would reply that from the experiments it is evident that this hypothetical extra-bacillar virus is so intimately bound to the bacilli that it acts only with them and through them, since the disease may be caused by bacilli artificially cultivated in albuminous material, in which they are capable of infinite increase without losing this hypothetical infection.—*Centralblatt für Medicinischen Wissenschaften*, No. 42.

THE USE OF METALLIC MERCURY IN INTESTINAL OCCLUSIONS.—The old practice of administering metallic mercury for volvulus has been revived by Dr. Bettelheim, who reports seventy cases of intestinal stenosis treated by this method: fifty-seven were entirely relieved by its use alone, and in none of the seventy were there any bad effects noticed. In six cases the remedy saved the lives of the patients. It is claimed that it acts promptly and efficiently, without any of the inconveniences which have been attributed to it.—*Deutsches Archiv für Klin. Med.*, and *Paris Médical.*

TRICHLORACETIC ACID IN URINE-ANALYSIS. — Raade proposes the use of trichloracetic acid as a test for albumen in the urine, used in place of the nitric acid in Gmelin's test, and in the same manner.

BROMIDROSIS PEDUM.—The subnitrate of bismuth is recommended for offensive sweating of the feet by Dr. Vieusse, of Algeria.—*Gazette Hebdomadaire.*

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, DECEMBER 1, 1883.

EDITORIAL.

THE ETIOLOGY OF HAY-FEVER.

THERE have been within the past two or three years a number of contributions to medical literature upon topics indirectly connected with the subject of hay-fever, which combine to throw some additional light upon the pathology of this, in many respects, peculiar disease. The publications of the Hay-Fever Association, and especially of two of its members, Dr. Morrill Wyman, of Boston, and the late Dr. George M. Beard, of New York, had already shown very definitely the geographical distribution of the disorder, and demonstrated conclusively that residence in certain places before and during the period of the customary attacks will confer complete immunity from them. To the well-known resorts in the White Mountains and on the sea-shore, might be added several that deserve to be better known in Pennsylvania: prominent among which is Kane, in McKean County, situated at the highest point attained by the Philadelphia and Erie Railroad in crossing the Alleghany Mountains. From personal experience, we know that this spot is constantly visited by hay-fever victims, who, while there, remain free from manifestations of the disease.

Although experience and observation had apparently established the fact that the immediate cause of hay-fever is contained in the atmospheric air of certain localities, we have the testimony of Dr. J. O. Roe, of Rochester, that in many hay-fever patients there may be found hypertrophies of the nasal mucous membrane; and he also reports cases* in which there was complete immunity from subsequent attacks conferred by removal of the hypertrophies over the turbinated bones.

On the other hand, a medical correspondent of the *Chicago Tribune*† very positively declares that the cause of the catarrhal symptoms "is not, after all, hay, grain, or the rose, or the peach, but the beautiful and widely-worshipped golden-rod, whose burr-like pollen-cells are especially adapted for the rôle of local irritants of the mucous membrane of the upper air-passages;" and he claims that these cells are carried into the nostrils through the agency of minute aphides. The correspondent considers these insects as the real cause of the disease, and recommends examination of the secretions, in order to discover if they contain their ova or larvæ. He suggests that some analogy may exist between intestinal worms and these parasites, and says that a diseased condition from such a cause "seems as reasonable as that from the presence of ascarides in other mucous surfaces."

Blackley, in his classical work,‡ declares, however, that, whatever might be the nature of the influences which modify the activity or power of pollen in producing hay-fever, this power was always present, in a greater or less degree, in all the plants he experimented with. In other words, since pollen of various kinds may cause the disease, it has no specific poison, whether vegetable or animal. We recall, in this connection, the fact that the microscopic investigations made by Prof. Leidy§ failed to demonstrate any specific cause for the disease.

In a communication to the last meeting of the American Laryngological Association, Dr. John R. Mackenzie, of Baltimore, claimed that he had discovered a nasal reflex centre for cough, in the mu-

* Transactions of American Laryngological Association.

† Republished in Fort Wayne Journal of Medical Sciences, October, 1883.

‡ Experimental Researches on the Causes and Nature of Catarrhus Æstivus. London, 1873.

§ Amer. Jour. Med. Sci., January, 1879, p. 85.

cous membrane of the upper portion of the septum, within a well-defined area. When this centre was irritated, whether by a foreign substance, or by a turbinate hypertrophy, or by the touch of the experimenter, cough was immediately produced, —in some persons more decidedly than in others; thus corresponding perfectly with the well-known ear-cough. Combining this with the foregoing, it would seem that this discovery throws more illumination upon the cause of hay-fever than we had before.

The fact of the existence of a personal idiosyncrasy with regard to this disease, as asserted by Phoebus, of Giessen, has been repeatedly observed. This may be explained, in part at least, by the discovery made by Dr. Roe of the existence of antecedent local disease. The fact of the necessity of the presence of an aërial agency in its causation also is demonstrated both by its geographical distribution and by experiment. The *modus operandi* of the particular irritant in each case and the mode of production of the peculiar symptoms are explained to a certain extent by the discovery made by Dr. Mackenzie. Hay-fever, then, is a peculiar catarrhal affection of the upper air-passages and associated regions, with a strong neurotic element (as shown by the paroxysms of coughing and sneezing, the sudden onset of the disease, and its occurrence principally among the higher classes and in persons who lead sedentary lives). It does not occur in all persons, but one attack predisposes to future attacks; and, although occasioned by various forms of irritants, certain individuals may be obnoxious to only one variety of irritant.

The treatment to be pursued is either to change the residence, so as to remove the patient from the sphere of activity of the special irritant in his particular case, or, as far as may be possible, to render him insusceptible to the action of the irritant by local measures to the upper air-passages: possibly by the use of a respirator and the application of detergent alkaline and antiseptic sprays to the inflamed mucous membrane, and other similar symptomatic means, until the period of the prevalence of the disorder has passed away.

HOMICIDE SECUNDUM ARTEM.

A PROMINENT physician of this city some years ago was called to see a young colored man who presented the usual symptoms of hydrophobia, and he gave the diagnosis accordingly. Returning some hours later, he found, to his great astonishment, that some of the neighbors had gathered in the room and were preparing to smother the patient with a large feather bed, which they considered the proper and the only thing to be done under the circumstances. These ignorant colored people, however, did not stand alone in the idea that when a person has hydrophobia it is both right and proper to put him out of his misery *secundum artem*. That this opinion is so wide-spread, and really not confined to the lowest classes in the community, suggests the horrible thought that other cases have occurred, and possibly not without the sanction of some ignorant but well-meaning physician. There is also a very common notion that an accoucheur on finding that an infant is deformed, or is a monstrosity, has a right to deny it proper care and to destroy it. As the ranks of the profession are recruited from those of the laity, and not always from the most intelligent and cultured portion of it, popular errors are thus liable to enter and be perpetuated in practice. This probably is the reason why proprietary medicines are still prescribed by some physicians, who thus betray a kind of atavism, by the persistence of ante-natal modes of thought not derived from their Alma Mater.

Some recent communications to medical journals seem to invite discussion of the question of the right of a physician deliberately to destroy life in another human

being, when his own life is not in danger. Two of them show such a misappreciation of the duties and privileges of the medical attendant that we cannot refrain from mentioning them. A correspondent of the *Boston Medical and Surgical Journal* inquires as to the duty of a physician when a monstrosity is born, whether or not it shall be suffered to live, and states that his preceptor had told him that it had been invariably his habit to destroy all such monstrosities occurring in his own practice! But a more remarkable case is one by D. Scott, M.D., of Pierre, Dakota, in the latest issue of the *Chicago Medical Journal and Examiner*. The patient was a man about 40 years of age, a pauper, living—or rather dying—alone in a cabin, covered by filth and flies. Obeying the direction of the commissioners of the county, Dr. Scott saw the man, who was in a terrible condition, the result of serpiginous phagedæna, which in its course had destroyed the external genitalia and had spread into a large ulcer from the perineal to the hypogastric region. The reporter asks, "What was the duty of the conscientious physician under the circumstances?" By a curious interpretation of the golden rule, he concluded to give him "a teaspoonful of Magendie's solution of morphia, which carried him rapidly into peaceful oblivion and final euthanasia twelve hours later."

Probably the poor man would not have survived very long at the best; but the physician, in his account of the case, does not appear to entertain any doubt of his possessing the right to dispense euthanasia. Some allowance, of course, must be made for the fact that the case was on the borderline of civilization, where proper conveniences for treatment were not at hand; but we fear that even the benevolent intentions of the one who offers a patient the happy release will not make killing anything but homicide in the eyes of the law.

NOTES FROM SPECIAL CORRESPONDENTS.

COLUMBUS, OHIO.

MEDICAL ETHICS "OUT WEST."

THERE is no provincialism so narrow and hopeless as that which may be found in a metropolis. A metropolitan, finding in his city everything that he wishes, and caring nothing for an acquaintance with the outside world, may live in his microcosm in contented ignorance. *Per contra*, the real provincial has many wants which bring him in person or vicariously to the metropolis, and he soon comes to know what is going on there as well as at home. It is, therefore, true, even if paradoxical, that one may find higher examples of culture in country towns than in great cities. This rambling beginning is intended to point a moral later on.

When metropolitan indifference gives way to enterprise, some queer things occasionally happen, as is abundantly illustrated in the literature of travel. A journey by a citizen through countries unfamiliar and which he has thought of before only with contempt, when put on record, is always amusing, if not instructive.

For instance: The Metropolis (with a capital M) has recently been enlightened by a wandering luminary of the *Medical Record* concerning the West,—more specifically, the great Northwest. The correspondent takes occasion to make some remarks upon "the Western medico generally," from which we extract the following gem: "Our Western *confrère* has perhaps heard of the Code,—in rare instances he has even read it some,—that is, the old one,—but he does not hanker after it. Nevertheless, he tries to lead the life of a gentleman. He feels satisfied that he can do this through the prompting power of his own impulses: hence he cares little for the old Code, and just about as much for the new one. He upholds regularity, especially in the matter of sending bills, yet he rarely hesitates to meet his homœopathic brother,—openly, as they do most things out there in that benighted West, not on the sly, as they do some things down here." I need scarcely say that this is untrue—to speak mildly. The action taken with reference to the New York insurgents (in the matter of the Code) in the last two meetings of the American Medical Association very clearly shows the attitude of the Western medical mind to the Code, for the dominant element in the Association is Western, at least in point of numbers. Having a fair acquaintance with the profession in Ohio, I can assure you that I know of no *reputable* practitioner who violates the Code.

Travellers should be careful in selecting their company, if they desire to give truthful pictures of the best society in any country.

STATE BOARD OF HEALTH.

There are rumors abroad that a more determined effort than any hitherto attempted is to be made during the coming winter to establish a Board of Health in Ohio. The excellent results achieved in other States make it a matter of wonder that the three leading States of the Union should be so backward in this matter. There are here many factors which stand in the way. Ohio has always had her full share of irregular practitioners, and since Illinois and West Virginia have dumped the greater part of their refuse into the State, this element has become larger and more important in the eye of the politician.

We have also nine regular medical colleges, a number sufficient to insure active competition and create a suspicion of mutual jealousy not favorable to harmonious action in any direction. When we add to this the intense ignorance of the average legislator in matters of hygiene and medicine, we see that such a movement has much resistance to encounter, both aggressive and passive.

TYPHOID AND MALARIAL FEVERS.

In this part of the world we are at present having quite a number of cases of typhoid fever with malarial complications, a condition attended with some puzzling symptoms. Occasionally a patient who has been exposed to the cause of typhoid will contract a malarial poisoning during the incubative period. The physician naturally makes a diagnosis of remittent fever, treats the patient with calomel and quinine, and a considerable improvement follows, including a reduction of temperature. But forthwith the typhoid symptoms supervene, and the patient, having been already enfeebled by his wrestling with the malarial fever, is in no condition to encounter the next enemy with advantage. It would seem that the "bacillus ilio typho-phyton" is an entirely different bird from the *bacillus malariæ*, since what is poison to one appears to be meat for the other. Uncomplicated typhoid is here, as elsewhere, a comparatively mild and manageable disorder.

The Central Ohio Medical Society, a vigorous institution, meets here monthly. I hope to furnish you, hereafter, with some account of its doings.

COLON.

November 8, 1883.

ST. PAUL, MINNESOTA.

A THREE weeks' sojourn in this city has given me exceptional opportunities of observing medical matters here and in the more youthful city of Minneapolis, only ten miles distant. To one whose life has been mostly spent in the settled and dignified cities of the East and South, the rapid growth of the newer Western communities presents itself as something quite extraordinary. Since my arrival here, I have conversed with a number of persons who are still in the full vigor of life, and who yet remember when this city of one hundred thousand inhabitants, with its electric lights, its telephones, its eight-page newspapers, and its prospective million-dollar hotel, was but a trading-post of two buildings. The prominent men in political, mercantile, or professional life are nearly all under forty years of age. As examples drawn from the medical profession, the most widely known gynæcologist in the Northwest is hardly over thirty-six, the best surgeon is less than thirty-two, the most successful oculist is certainly under thirty-five, while the mass of the profession is probably not out of the twenties. As in the medical, so in the legal profession and in mercantile life, the young men are at the front, and it looks mightily as if they intended to stay there. Already I have heard "old" physicians of thirty-five talking of giving way in a few years to the younger men who are coming to the fore and will soon supplant their youthful seniors!

In the East one often consoles himself, when things go awry, with the comforting fiction that the West is a wild place, where all sorts of wickedness run riot in a bold and law-defying course, and that one must "rough it" there, and be one of the *hoi polloi*, if one desires to get along at all. So far as St. Paul is concerned, nothing is further from the truth. Everything that can be desired in the way of culture and comfort can be had here, and it is generally paid for at pretty lavish rates, considered from the economical stand-point of the East.

The medical profession of St. Paul is, taken altogether, the most harmonious in sentiment and helpful in mutual service that I have found anywhere in this country; and I can establish the claim of being somewhat of a traveller. I have had the opportunity of meeting all the regular physicians of the city, with very few exceptions, at a reception given by one of the most prominent and successful men here, and have had quite abundant opportunities otherwise of judging. Nothing can exceed the courtesy with which they treat each other. Ethical questions seem to disturb them very little, because most of them observe the strictest ethical propriety in their professional relations. Some of the specialists, I am told, did adopt questionable means to bring them into notice, but the "Oculist and Aurist" sign disappeared after a little coaxing. Personal feeling is kept entirely in the background, and no evidence of it ever crops out publicly. Even in the placid professional life of Philadelphia the personal element is more pronounced than here. This does not mean that the medical men here are a weak set, who get along peaceably for lack of self-assertion. Far from it. In physical, mental,

and doubtless in moral attainments, the St. Paul physicians compare very favorably with the profession in any of the large cities of the country.

At the last session of the Minnesota Legislature, a medical bill was passed creating a State Board of Medical Examiners. The law is modelled after the Illinois and West Virginia laws, and goes into effect on the 1st of next January. The quacks who are threatened by the law are preparing to move farther West, or perhaps back to the more tolerant East.

In the cities of St. Paul and Minneapolis very stringent health ordinances exist relating to the notification of infectious diseases. In some cases neglect on the part of the physician has resulted in arrest and fine. Houses in which smallpox, diphtheria, or scarlet fever exist are placarded by the health department, and public funerals in cases of infectious diseases are prohibited.

The State has a well-organized Board of Health, whose work compares very favorably with that of similar organizations elsewhere.

At the last meeting of the Ramsey County Medical Society,—which is the St. Paul branch of the State Society,—Prof. C. A. Wheaton exhibited a patient upon whom he had performed amputation at the hip-joint for necrosis of the femur. The removed bone was also shown, and was the most beautiful specimen of the sort I ever saw. After the relation of other cases, Dr. Schulin read a very excellent paper on the use of jequirity in granular lids. The author's results, after considerable experience with the remedy, agreed with those obtained by De Wecker, Sattler, and others.

The Minnesota College Hospital is in advance of most of the larger Eastern schools in insisting upon a preliminary examination and a three years' course. The class is moderate in size,—between fifty and sixty,—but seems to be composed of good material. The Faculty is composed almost equally of St. Paul and Minneapolis men, and is mostly made up of well-informed men and good teachers. In due time the weaker elements will disappear, and be replaced by others better qualified. The hospital facilities are excellent, and the institution deserves, as it will doubtless achieve, success.

The social qualities of the medical men here are doubtless remembered with pleasure by the members of the American Medical Association who attended the meeting of last year. I can echo the sentiment I then heard so generally expressed, that the St. Paul physicians are "good fellows, all." I never spent three pleasanter weeks in my life than those which gave me the opportunities to make the observations just recorded.

CORSAIR.

November 10, 1883.

CORRESPONDENCE.

LONDON LETTER.

THE session is quietly progressing, and nothing is going on unusual or surprising. The ordinary number of peers are ill, and the usual array of medical names are found in attendance upon them, as the columns of the daily press tell us. The Archbishop of Canterbury has had an operation performed upon his rectum, a matter which it seems "it was requisite for special reasons should not be misunderstood or misrepresented." I suppose if the commander-in-chief of the British army happened to require an operation for stricture, there might be found "special reasons" why it should not be "misunderstood or misrepresented." I was brought up to regard the maladies of patients, especially those connected with what was the one cloacal opening of the lower forms of life, even when divided into two, as strictly matters for privacy. But *tempora mutantur*, and—must it be added?—*nos mutamur in illis*. It is a strange tale of upheaval of old notions if it is so. What makes it still more curious about the primate's illness is, "Those most interested wished that the whole truth should be known, and that there should be no secrecy in the matter." If publicity is desired by those most interested, of course no secrecy on the part of the medical attendant could be either desired or insisted upon; but if "those most interested" in one case desire publicity, in that case it is breaking down the old rule, and makes the old-fashioned secrecy, instead of being, outside all question or consideration, a matter of course, now a matter on which the patient and his family must be formally consulted in such cases. The tendency will be to embarrass the relations of those exalted personages who figure in the newspapers, and their medical advisers. Fancy, if an elderly nobleman were to be operated upon for an anal fistula, his surgeon having to ask, "How many of the details would your lordship like to have inserted in the published report,—the mere length of it, or more minute details as to the manner of operation and how your lordship bore it?" Yet it would seem that this is what we are in some danger of coming to, if the desire for publicity becomes too strong for decency: it has some time ago overstepped propriety. The present primate has been rather weak in his parade of his position, but this ridiculous folly will simply provoke contempt. It is to be hoped, out of respect for his office, that he personally, though one of those most "interested," did not desire "that there should be no secrecy in the matter."

I have had occasion from time to time to subject matters connected with the British Medical Association to criticism which some might regard as sharp, and a smaller number

even hostile; but it is now my pleasant duty to relate something of it which is decidedly meritorious and calculated to be of the very highest utility. Some time ago the project was mooted of utilizing the vast numbers of the Association for collective investigation,—an excellent project. The waste of experience going on was felt to be a reproach. Hitherto observations and generalizations have been mainly the work of individuals rather even than of committees. "The advantages of this method are obvious, and it must continue a great means of advancing medical science; but it has the disadvantage of leading to a sort of imperialism or Cæsarism, and hence to the domination at particular periods of the dicta or dogmas of certain persons, and that prevalence of passion, that blind adoption of shifting views and modes of treatment, which tends much to repress thought and stifle inquiry." Consequently, it was thought that "the collection of information upon a grand scale, which has the double effect of stimulating many investigators and of drawing facts from many sources, not as a substitute for, but as an addition to, individual research, has long been felt to be one means of meeting the difficulties and disadvantages just mentioned. It was obvious that the British Medical Association, with its enormous force of members, its *Journal*, its organization of branches, its funds gathered by good management and economy, afforded an opportunity such as had never existed before of doing it." So a committee of some good men, metropolitan and provincial, was formed, who set to work. Addresses were given by Sir William Gull, Sir James Paget, and Professor Acland, giving great encouragement to the promoters of the scheme; "but the greatest encouragement of all has been the number of carefully-filled cards which have been received, especially on pneumonia, from the members of the Association living in the various districts of the country. For this shows not only a widely-extended perception of the need of the work, but the willingness of a large number to assist in carrying it out." It was soon found, indeed, that the *Journal* must be relieved of much of the material, and a special report be issued.

As to the communicability of phthisis, a certain proportion of answers, amounting to the respectable total of two hundred and sixty-one, tell of this having been observed, while a smaller proportion, one hundred and five, actively negatived the view. Now, when so many men have observed a fact (if fact it be) so opposed to their professional teaching, even the stoutest advocate of the old view may be pardoned if his confidence in that view is a little shaken. That cases of communicated phthisis, distinct and unquestionable, can never form a large proportion of the total number of cases of the common malady is probable enough. Nor is, perhaps, the scare on the subject in Germany following upon Koch's discovery of the bacillus of tubercle altogether without some permanent value in all probability. Bacilli are found in hordes in softening tubercle, I am credibly informed; and one of those most interested in the subject offers, with much complacency, to make myself the victim of phthisis if only he may place a sufficiency of the little villains in my veins: still, there is the family predisposition to be borne in mind. The contagiousness of pneumonia, of which there is some evidence, "striking if scanty," is an aspect of that malady distinctly novel. The report on the treatment of acute gout will be interesting and instructive, if only negatively instructive. As to chorea, it was found, "with reference to *nervousness and nervous affections in the families of those suffering from chorea*, the returns supply information which strengthens the general opinion that the disease is especially apt to occur in families in which other nervous affections are common." Arsenic seems to have been one of the main agents used in the treatment, with the result "varying success," while sulphate of zinc seems often "to have been of striking utility." As to acute rheumatism, the prevalence of fashion in the treatment of disease is demonstrated by the fact that salicylate of soda was the drug in most favor. From the report on diphtheria it would appear that sometimes the throat is comparatively little affected while the kidney-complications are proportionately severe. This fact certainly tends to show (to my judgment at least) that diphtheria is allied rather to scarlatina than to croup, and falls in with my personal experience in the past. A proposal to inquire into the association betwixt whooping-cough and measles is also suggested.

The subjects at present before the Association are—1, acute pneumonia; 2, chorea; 3, acute rheumatism; 4, diphtheria (clinical); 4*a*, diphtheria (sanitary); 5, syphilis (acquired); 5 *a*, syphilis (inherited); 6, acute gout; and a great deal of very useful information will probably be elicited on the various topics. How far the information obtained by collective investigation will harmonize with or clash with the opinions formed by individual observers remains to be seen. It will certainly stimulate those who are ambitious of being regarded as leaders in medicine to examine their views very closely when they see what views find acceptance with the profession, as indicated by these returns; while doubtless on the other hand many isolated facts will be gathered together, gleaned as it were by this collective inquiry, which will furnish material for comprehensive thinkers. From both of which much good will accrue and much thought be excited throughout the ranks of the profession.

An address recently delivered at the annual meeting of the Metropolitan Branch of the

British Medical Association, by Dr. Charles J. Hare, the President, and late Professor of Clinical Medicine in University College Hospital, has been reprinted by request. It is entitled "Good Remedies out of Fashion," and throws a most interesting light upon the change which has gone on in medicine during the last generation. Dr. Hare seems rather oppressed by the number of new remedies advertised for the liver and ending in "in." Then, deprecating the criticism of "younger members of the profession, who will look upon these things as some strange and new doctrine, or as prejudices clinging to me from my earlier days, or as antiquated customs of which the progress of modern science has shown the futility or wrongness," he plunges in. First he considers the subject of *milk*, now so largely given in all hospitals. Five-and-twenty years ago it was difficult to see a patient who had been in the hospital a few hours before one's visit who had not been already, and almost as a matter of course, put on three or four ounces of brandy by some resident assistant, a fashion against which he set his face at the time. He points to the fashion on the subject now, when alcohol is being tabooed very extensively. He collected statistics from our leading hospitals as to the amount of alcohol purchased then and now. At St. Bartholomew's Hospital, for instance, in 1852, wine and spirits cost £496; in 1862, £1231; in 1872, £1446; and in 1882 the sum of £953. The variation in other hospitals has been much the same. Milk has grown in demand: at St. Bartholomew's, in 1852, milk cost £684; in 1882, the sum of £2012; at Guy's, £236 and £1448 respectively; and at the London Hospital, £426 and £2427 respectively. These figures carry with them much material for thought and reflection. Yet in these hospitals there are many patients who are little more than broken-down drunkards. In a rural population probably less alcohol, even, would be given under like maladies.

Then he proceeded to speak of "Emetics." Not long ago he saw in consultation a case of suffocative bronchitis, and advised an emetic. The comment was, "Why, I never gave an emetic to an adult in all my life." It makes one feel a strange sensation of wonder to conceive where this medical man had got his college education, and what kind of an experience he had had in professional life. Dr. Hare then gives a sketch of the almost magical effects of an emetic in such bronchial condition. He then alluded to the composing effects of an emetic in delirium tremens. He then referred to a case where a corpulent lady of 34, who suffered from dyspeptic pains, and who was made worse by food, was relieved by vomiting, especially as to the nausea and headache. The vomited matter was always intensely acid. He soon satisfied himself that there was no organic disease of the stomach, and gave a scruple of ipecacuanha powder. After this she vomited freely a quantity of ropy mucus, intensely acid, and after that was *well!* In such cases he thinks there is present much morbid acid in the gastric follicles; a little was got rid of by each act of vomiting; but the emetic, followed by draughts of warm water, removed all the excess of acid, and so cured the patient.

He then spoke of the use of opium in "needless, useless coughing;" but, personally, I fear that a man with less than Dr. Hare's judgment might easily reduce the coughing to the stillness of death, if he followed his practice without the necessary discrimination. Used as Dr. Hare proposes, there is much to be said for such use of opium; but wielded indiscriminately I shudder at the consequences. Then he spoke a word for purgatives, now too much avoided from the fear of producing "debility." This word, he says, is "the *bête noire* of the present medical world." Then he quotes Byron: "Talk about champagne, there is nothing in the world cheers your spirits up like a dose of Epsom salts." Then a word or two followed about mercury as a cholagogue, and its great utility in melancholy,—the "black bile." Then follows a eulogium of the old attention to the *primæ viæ*, so little understood, and therefore so little attended to, at the present time. More aperients would mean fewer tonics, he opines. "Remove the cause, and the effect will cease," he holds, "and in many cases where it is little suspected, the cause of the varied symptoms lies in the morbid secretions in the *primæ viæ*, which have been long, perhaps, poisoning the system. If these be removed, there is, in a vast number of such cases, strength and 'spring' enough in the constitution to set all to rights without the aid of anything, or with the aid of but little in the way of tonics; and in many cases with the removal of the intestinal irritants the 'weakness' and 'debility' rapidly vanish." If this is not the old hydra-headed monster 'humoral pathology' rampant as ever, what is it? Ye men of the dead-house and the microscope, ye clinical men of stethoscope and plexiemeter, do ye hear the prophet of the past speaking to you? Do ye heed? "Such fluctuations and such changes take place in opinion and in practice, in beliefs and actions, that it almost seems as if the results of the experience of ages, instead of being engraven on the rocks, were written on the sands, and that the wave of fashion, sweeping over these, at once obliterated the inscriptions which ought to have been indelible." Then follows a consideration of "blood-letting." Once no hospital was without its cupper, who visited daily to carry out the instructions of the physicians and surgeons. Where is he now? Gone, it is to be feared. Yet Dr. Hare thinks he might be useful still. Gone "with the dodo and the ichthyosaurus!" Then as to leeches. They have gone too. In 1842 the cost of leeches at

St. George's Hospital was £141; in 1852, £38; in 1862, £5; in 1872, £2 14s., and in 1882, £2 13s. 6d.; while at the London Hospital leeches cost in 1839, £495; in 1842, only £180; and in 1872, £5 10s. A once large leech-importing firm now do not think it worth while to keep any account of leeches, their sale not amounting to fifty yearly. Dr. Hare eschews any intention of advocating a return to the old days of "the almost indiscriminate use of bleeding;" but the abuse of a thing is no argument against its use. He then showed a friend of his who in 1829 had a fit, for which he was bled repeatedly with good effects. After a time the fits returned, and he was bled again, and freely, and leeched too. Yet, so far from debility being produced then or since, the gentleman was a very hale specimen of an old man. He told of the good of bleeding in pneumonia; of its almost magical effects in pleurisy. Then the engorged right ventricle came in for its share of consideration, and a graphic picture is drawn of the good effects of bleeding. As the black, tarry blood begins to flow at first only with the greatest difficulty, then more freely, the relief is almost beyond conception. As I read the description, the words of my father and others of the past generation seem to be once more ringing in my ears with a quite familiar sound. Then "the choked-up heart is set free."

Dr. Hare disclaims in this any "fancy picture," and appeals to the senior portion of his audience for the corroboration of his words. He then tells of a case of a girl of fourteen, who had head-symptoms from over-study. Leeches gave relief, so that she could leave her bed. During thirteen weeks she was ill, and in that time was seen by three of the most eminent F.R.C.P.s, not one of whom gave a thought to leeches. Bromides were given, with some counter-irritation. At last Dr. Hare determined to do his own way. "On February 17, therefore, five leeches were again applied to one of the temples, and somewhat later the same number was repeated. The first of these applications gave the first relief the patient had to the coronet of pain which had been so long her constant companion; but, though greatly relieved, it was not cured. The second of these applications (the fourth of the series) entirely removed it, and the girl, once more bright and cheerful, returned to school, and has not since been an hour absent from her duties." Another picture, most forcibly drawn, was given of the effect of leeching in acute meningitis. Dry cupping came in for its word in the retrospect, and then the doctor made his *congé* and took his leave of his hearers, who seem to have listened to the voice of one of our master-spirits long ago gone over to the majority, who had come back to tell us that all our recent advances have not been progress. There is much in the past which has been neglected and almost forgotten which is well worth digging up, and "voices from the dead" will, it is to be hoped, from time to time waken us up as a not unnecessary or undesirable attention. Are we not nodding in a complacent, self-satisfied snooze very often, even in what we hold this wide-awake age? Dr. Hare, and those who think with him, would seem to be of some such opinion.

J. MILNER FOTHERGILL.

PROCEEDINGS OF SOCIETIES.

AMERICAN PUBLIC HEALTH ASSOCIATION.

THE eleventh annual meeting of the American Public Health Association, held at Detroit, Michigan, which closed November 16, was one of the most successful in the history of the Association. The subjects discussed were practical, and the majority of the papers read were of more than average value. Business was dispatched with commendable speed, owing to an efficient Executive Committee, and the duties of presiding officer were performed with dignity and grace by Dr. E. M. Hunt.

The proceedings of the first day comprised papers on the Texas Cattle-Fever, by Dr. Salmon, of the Agricultural Department; on Swine-Plague, by Dr. J. M. Partridge, of Indiana; and a report on Actinomycosis in cattle at the Chicago stock-yard, by Dr. William T. Belfield, which was accompanied by microscopic specimens of the appearance of the diseased tissues, and of the fungus *actinomycosis*,—the cause of the disease. Dr. Salmon's paper was very elaborate, and considered the question very fully, whether the disease called "Texas fever" was really a specific disease of cattle, or whether a number of widely-different affections were included under this name. The conclusion arrived at, after a thorough sifting of the evidence, was that Texas fever is an acute, contagious, specific disease of cattle, that it is endemic in Texas and other parts of the Southern United States, and that it may be, and is frequently, spread by contagion to other parts of the country. The paper deserves the careful study of all sanitary officers and stock-raisers. The report of Dr. Belfield on actinomycosis is of especial interest as being the first exact contribution to our knowledge of the disease made in America. As actinomycosis is communicable to man, and is invariably fatal in the latter, the value of his observations is apparent. The common name for the disease in cattle is "swell-head," or "lumpy mouth," from the characteristic lesion, a series of tumors of the upper jaw, which on examination with a microscope show a fungus consisting of club-shaped rods radiating from a common centre. The af-

fected animals lose flesh, and eventually die with symptoms resembling pyæmia.

The discussion on malaria was opened with a paper on its etiology by Dr. G. M. Sternberg, U.S.A. This paper was followed by equally elaborate ones from Surgeons A. A. Woodhull and Charles Smart, also of the army. Dr. Sternberg's researches, statistical and otherwise, showed that the cause of malarial fevers was not produced in the absence of heat, moisture, and vegetable decomposition. The intimate nature of the cause he did not attempt to elucidate. Dr. Woodhull's views were nearly similar to those arrived at by Dr. Sternberg, while Dr. Smart struck a more practical chord by showing that malarial diseases could be caused by polluted drinking-water, and urging the necessity of more frequent and thorough analysis of drinking-waters, in order that the immediate cause of malaria might be discovered.

The discussion revealed a singular want of definiteness of opinion as to the nature and cause of malaria among those taking part in the debate. Several members, however, —among them Dr. Rohé, of Baltimore, Col. George E. Waring, of Newport, and Dr. Wight, of Detroit,—pointed out the relation of the motions of the ground-air and ground-water to the spread of malarial diseases.

In the evening a brief address of welcome, full of good sense and good humor, was delivered by the Governor of the State, who was followed by Dr. Brodie, of Detroit, and Dr. John Avery, President of the Michigan State Board of Health. The President, Dr. Hunt, then delivered his annual address. Dr. Hunt sketched briefly the origin and progress of the Association, giving a concise account of the advancement of sanitary science since its organization, and the Association's share in producing the advancement. The address was scholarly in matter, eloquent in manner, and gracefully delivered. Although occupying over an hour in delivery, it was listened to with close attention by the large audience present.

The inevitable paper on Yellow Fever appeared on the second day's programme, but was quickly disposed of, and the Association proceeded to the discussion of more profitable matters. The Adulteration of Foods was discussed by Drs. W. K. Newton, of Paterson, New Jersey, Prof. A. R. Leeds, of Hoboken, and Profs. Kedzie and Vaughan, of Michigan. The only thing clearly brought out was that laws against adulteration were of comparatively little use, because they were not properly enforced.

An excellent paper was read on the Hygiene of Schools, by Dr. C. J. Lundy, of Detroit. It was discussed by Dr. A. N. Bell, of Brooklyn, and Dr. Jones, of Massachusetts.

In the evening, addresses on Physical Training were made by Prof. J. Madison Watson, of New Jersey, and Prof. Sargent, of Cambridge, Mass. The advantages of the various systems of physical culture were clearly explained, and its importance as a part of the school curriculum was strongly urged.

Dr. James E. Reeves, Secretary of the West Virginia Board of Health, delivered an excellent address on the Usefulness of State Boards of Health in Guarding the Public Welfare. It presented in a clear light the importance of sanitary organizations, and a becoming pride was expressed by the speaker in the advanced position held by his own State. The feature of the West Virginia law regulating the practice of medicine was explained, and an exposure of what looks like a bit of very sharp practice on the part of one of the medical schools of the Southwest was made to give spice to the entertainment. Dr. Reeves apparently has little hope for reform on the part of those States lying in proximity to the borders of his own State, for he says, "Little West Virginia, nestled in the mountains, and looking into the near future for the coming time when her inexhaustible stores of native wealth shall be unlocked to hundreds of thousands of busy laborers, has proudly acknowledged allegiance to the goddess Hygeia, under whose health-inspiring banner she has already won substantial victories and benefits for the saving of her citizens. But, while flushed with the stimulus of her triumphs, she turns in sadness and with outstretched arms and pleading voice to her elder sisters by whom she is immediately surrounded,—Ohio, Pennsylvania, Maryland, and the dear old Mother State,—and says to them, 'How long, oh, how long shall the land which the Lord thy God giveth thee be the *Paradise* of quacks?'"

The questions of sewage removal and final disposal, the ventilation and proper construction of sewers and water-closets, were discussed by Drs. J. H. Raymond and Bell, of Brooklyn, Mr. R. Herring, C.E., of New York, Dr. Oldright, of Canada, Col. Waring, and others, who by study and experience were able to contribute to a more thorough knowledge of the subjects under discussion.

The Increase of Insanity in the United States was the subject of an able paper by Dr. Foster Pratt, of the Michigan State Board of Health, read as the closing paper of the meeting. The author showed that the percentage of insane of foreign birth in this country largely exceeded the percentage of the native insane. He advocated the passage of laws to prevent the immigration of insane persons, paupers, and criminals from foreign countries. Resolutions praying Congress to pass such laws were adopted by the Association.

The officers elected for the current year are—

President, Dr. A. L. Gihon, Medical Director U. S. Navy.

First Vice-President, Dr. James E. Reeves, of West Virginia.

Second Vice-President, Hon. Erastus Brooks, of New York.

Secretary, Dr. Irving A. Watson, of New Hampshire.

Treasurer, Dr. J. B. Lindsley, of Tennessee.

The next meeting of the Association will be held in St. Louis in October, 1884.

The local committee, under the chairmanship of Dr. Wm. Brodie, made it pleasant for every one by their attention to the comforts of the visitors. CORSAIR.

NEW YORK ACADEMY OF MEDICINE.

A STATED meeting of the Academy was held, November 15, 1883, FORDYCE BARKER, M.D., LL.D., President, in the chair.

The death of the late Dr. J. Marion Sims was announced by the Statistical Secretary.

THE PRESIDENT made the following remarks:

By the death of Dr. Marion Sims the Academy of Medicine, the profession of this city, and, I may well add, the profession of the country have lost their most original and brilliant genius in the department of surgical gynæcology. This will be conceded by all. Had circumstances forced him to equal activity in other branches of surgery, his fertility and promptness in practical suggestion, his intuitive power of conception of new means to secure any desired result, his endowment of invention and wonderful mechanical adroitness, would undoubtedly have given him equal eminence in all its departments. No one can be compared with him in his own sphere, in which he achieved such great distinction, except the late Sir James Y. Simpson. An intimate relation with both for many years may, perhaps, justify me in saying that there were very many points as to their intellectual and moral qualities which were strikingly characteristic of both. These resemblances were much more numerous than the points of contrast. In the future the greatest fame of one will rest on his courage, and I may even say audacity, in successfully introducing anæsthetics to relieve the agonies of parturition; in the other by his genius in devising new methods of physical exploration and new surgical procedures which effect cures of lesions which before could neither be correctly diagnosticated nor successfully treated. In thus alluding to the greatest achievements of the two, I should also add, both were incessant, zealous workers, who for many years were constantly making positive contributions to our science and our art, many of which would alone establish their claim as great men in our profession; the former perhaps adding more to our scientific literature, and the latter more to the advancement of our art. Neither of them was reluctant to have his good work appreciated. To-morrow morning, I doubt not, every Fellow of the Academy whose engagements will permit will be present at the funeral services of our late most eminent associate. The chair, in accordance with our by-laws, will designate Dr. T. Addis Emmet to read a memoir at the first meeting of the Academy in January.

TYPHOID FEVER IN NEW YORK.

Dr. FRANCIS DELAFIELD read the scientific communication of the evening, with the foregoing title. The statistics given were based on the cases treated in the several hospitals of this city during the past few years. By the tables of mortality of the Board of Health he had learned that for many years past there had been an annual mortality from typhoid fever in the city of New York of from one to two hundred. From 1863 to 1866 the mortality ran up as high as five hundred to six hundred yearly during the time when typhus fever was also prevailing in the city. Since that time the yearly mortality had been from two hundred to four hundred; in 1879 it was one hundred and seventy-eight; in 1881 it was four hundred and forty-six; up to October 1, 1883, it had been two hundred and seventy-four. Most of the cases occurred in the latter part of summer and in early fall.

From the 1st of 1877 to October 1, 1883, thirteen hundred and five cases had been treated in the city hospitals. The percentage of mortality for these several years had been 27, 20, 30, 22, 23, and 26, respectively. Most of the cases were in adults between twenty and thirty years of age. But few children were received at the hospitals. There were many difficulties in the way of getting at the etiology.

At the autopsies the regular lesions, more or less marked, existed. The solitary and the agminated glands of the small intestines had been swollen, converted into ulcers; adherent sloughs were present, or the ulcers may have been cleaned off. The large amount of infiltration which occurred in some epidemics was not present. Perforation with peritonitis had occurred in but a small number of cases; the colon was but seldom involved, and in these the enlargement and sloughing of the solitary glands was marked. In one case multiple new growths of lymphatic tissue, with ulceration, occurred in the stomach; the mesenteric glands were swollen in a degree corresponding to the intestinal lesions. When unusually swollen, a little fibrin was present over the gland, and in one case the peritonitis had become general. Suppuration occurred in two cases. The spleen was soft and usually enlarged. In the case of a boy eight years of age it had ruptured, and hemorrhage had taken place into the peritoneal cavity. Inflammation of the colon existed in several cases and produced dysentery. In one the lower two-thirds of the colon were coated with fibrin. The liver was often enlarged.

Suppuration of the parotid did not occur. The kidneys showed swelling and degeneration of the epithelial cells, corresponding with the appearance of albumen in the urine, and sometimes of casts, during life. Flabby heart with degeneration of muscular fibre was present in but a few cases. The lungs were the seat of a variety of changes, as, congestion of the larger bronchi, in a few cases severe bronchitis and broncho-pneumonia, lobar pneumonia in two cases; a moderate degree of hypostatic congestion in the posterior portion of the lung was common. There was characteristic granular and waxy degeneration in the voluntary muscles, especially those of the anterior abdominal walls, in only a moderate proportion of the cases.

These notes were based upon one hundred and two cases of undoubted typhoid fever which had occurred in the hospitals during the past five years. During this time a number of cases of fever simulating that of typhoid had occurred. Of the one hundred and two cases there was a distinct prodromic period in only eighteen; languor, headache, indisposition to mental or physical labor, loss of appetite, constipation or diarrhœa, irregular chilliness, in some bronchitis. This period had varied from four days to several weeks. The invasion in thirty-seven out of the eighty-three cases in which the character was learned was a chill on the first day, either of a mild or more severe type; sometimes the chill was repeated, and was followed by febrile movement, often accompanied by headache, vomiting, and nose-bleed.

Diarrhœa.—Diarrhœa, accompanied by fever and sometimes by headache and epistaxis, was one of the first symptoms in twenty-five cases. There were forty-four cases in which diarrhœa was one of the first symptoms, in three of which blood was mixed with the passages during the first few days. Headache and fever marked the onset in fifteen, and in six bronchitis was a prominent feature during the first week. Pain over the abdomen, or in the right iliac fossa, existed in many of the cases. For various reasons, the record of the temperature could not be given in many cases for the first week. In those in which it was taken it did not follow the regular course which certain authors had laid down in the books. In some there was a morning chill, and afternoon fever and sweating; in some there were falls of the temperature, lasting for from six to twenty-four hours, during the first week. In the second week the temperature approached more nearly to the type of a continuous fever, with moderate morning remissions; in some the remissions were more decided; in some the morning temperature was the highest; in some it fell to normal by the fifteenth day, and convalescence began; in some the disease continued, the temperature again rising after a few hours. When a fatal termination took place in the second week the temperature reached its highest point a few hours before death, or, if sooner, it fell to 101° or 100° just before death. The third-week temperature-record was much like that of the second. In the fourth there were more marked morning remissions. In some instances the temperature became lowered for a day or more, and then again rose. The height of the temperature was usually in proportion to the severity of the disease.

The pulse during the first week was regular, full, from ninety to one hundred, becoming more rapid and feeble in the second and third weeks. As a rule, the more rapid the more feeble the pulse. A rapid pulse was usually an unfavorable symptom. If a slow pulse was accompanied with cerebral symptoms, the case closely resembled cerebro-spinal meningitis.

The appearance of the patients was that usually seen in typhoid cases,—dulness of expression, dusky face, flushed cheeks, sluggishness of mind, tongue coated with white fur in the centre, afterwards becoming yellow-brown, sometimes becoming fissured. In some cases the tongue was comparatively clean; when it began to grow moist, convalescence might be considered as approaching. Active delirium was present in a number of cases, and was an indication of a severe form of the disease. Diarrhœa was present in eighty-two cases, beginning early in forty-four; in fifty-one it continued throughout the course of the disease. There was continuous constipation in eighteen cases, often associated with a marked degree of tympanites. The eruption was well marked in forty-four cases, and it had probably been overlooked in others. It had been more constant during the past autumn.

Complications.—Hemorrhage from the bowels took place in twenty-three cases, and was the direct cause of death in six. In two cases there was constant running away of blood from the rectum in the sixth week, as in cases of cancer, but no malignant disease was present. When hemorrhage occurred it was usually followed by a fall in the temperature. Only nine of the patients in whom hemorrhage occurred recovered. A pustular eruption of the skin occurred in one patient, but produced no other symptom than discomfort. Suppurative inflammation of the middle ear and discharge of pus in five cases; severe pharyngitis with false membrane in one during the first week; there was a moderate degree of catarrhal laryngitis in a number; bronchitis and a severe type of broncho-pneumonia in twenty-four, in sixteen of which it occurred during the first week. In three cases bronchitis seemed to have been the cause of death, lobar pneumonia in two cases proving fatal; repeated attacks of feeble heart-action and syncope in one patient; peritonitis in four cases, caused by perforation in two; thrombosis of the femoral vein in one; dysentery

after convalescence in five, proving fatal in one.

In one case convalescence began on the sixteenth day; in four, on the eighteenth; in six, at the end of the third week; in fifteen, in the fourth week; in twelve, in the fifth; in four, in the sixth; in four, in the seventh; in one, in the eighth; in nine, in the ninth; and in one case, in the tenth week.

There were well-marked relapses in seven cases. Out of the one hundred and two cases, thirty-four proved fatal; in eighteen, death seemed to be due to the typhoid disease. In the fatal cases the temperature usually ran high, from 104° to 107°, but not continuously so. The pulse was feeble and in most cases rapid.

In mild cases the patients were put to bed and given milk diet. Some of the hospitals employed peptonized milk; some physicians gave some form of alcohol in every case, by others it was reserved for feeble heart action. Digitalis, convallaria, and caffeine were often employed as heart-stimulants. In some hospitals quinine was given to nearly every patient, in others only to reduce temperature, in others it was scarcely resorted to at all. The general bath of late had been almost entirely abandoned in the hospitals. Cold water, in the form of sponging or wet sheets, was still employed, more or less, for reducing the temperature. Turpentine, internally and externally, was commonly employed in tympanites. Opium and ergot were employed in intestinal hemorrhage. In diarrhœa, opium, with bismuth or pepsin, and a solution of acetate of aluminum, were mostly used. In one of the hospitals, if the patient was seen early, calomel was given with the hope of aborting the attack. Salicylate of sodium, benzoate of sodium, a combination of carbolic acid and tincture of iodine, with the idea of acting upon the poison of the disease, were seldom used.

THE PRESIDENT directed attention to certain points in the paper which he would be glad to hear discussed, and first called upon Dr. Alfred L. Loomis.

Dr. LOOMIS said that he had been interested to know what definition Dr. Delafield would give of typhoid fever. As the disease had been described by the author of the paper as prevailing in the city of New York at the present time and for some years past, one would hardly recognize the same condition, called typhoid fever, described by Liebermeister and other European writers. Those writers gave typhoid fever a typical range of temperature, gradually rising during the first week, remaining about even during the second, remittent during the third, intermittent during the fourth; as having a characteristic rose-colored eruption, which appeared between the sixth and the tenth day, each spot remaining three days, and then disappearing, perhaps to be replaced by another; a pea-soup diarrhœa; the disease originating in a specific poison,—that is, from matter contaminated by the excrements of the typhoid patient. Such regularly characteristic symptoms had not been described by Dr. Delafield, nor had they regularly occurred in the cases of so-called typhoid fever which he had seen in the city the past few years.

Dr. F. P. KINNICUTT had examined the few fatal cases to which he had had access in the St. Luke's Hospital with regard to a possible relation between deep ulcers of the intestines and constipation, to which Sir William Jenner had first called attention. He thought that in those few cases such relationship seemed to have existed, and if so it had an important bearing upon the use of laxatives. It was best not to give laxatives by the mouth, but to employ an enema, one of small size, frequently repeated, being preferable to a large one. He was disposed to regard the relapses as due to the remains of the true typhoid poison within the system, rather than to accidental circumstances. His treatment consisted principally of rest in bed, plenty of pure air, a strictly-regulated diet, and medicinal treatment for special symptoms as they arose.

Dr. E. G. JANEWAY quoted the statistics of typhoid fever in New York City for more than a quarter of a century past, going to show that the disease was not increasing out of proportion to the increase of the population, as had been inferred. Typhoid fever was known to vary more or less in different epidemics, as was the case with other infectious diseases, and an atypical form had been described by European authors, and he therefore regarded the fever as it now prevailed in this city as true typhoid fever. The intestinal lesions were similar in the different fatal cases, although they varied in intensity, as did also the symptoms referable to such lesions. It might be difficult in given cases to trace the etiology, but he had often been able to do so, although at first it seemed impossible. To show the numerous opportunities for the germs to become spread, he referred to the case of a man, a peddler, who appeared at the hospital with typhoid fever, having had the symptoms thereof for more than a week, while going about at his occupation and during that time making use of the water-closets in the tenement-houses of the city. An estimate showed that in this manner he had possibly contaminated the water-closets of forty-eight different tenement-houses. In some epidemics the diarrhœal symptoms were more marked, in others constipation; and so of the other symptoms. He had found an eruption in nearly every case during the present fall.

Dr. T. A. MCBRIDE had employed kairine to reduce the temperature, giving it in seven-grain doses until the temperature fell to 101°, and then keeping it at that point by giving

frequently-repeated small doses. When so used, the drug produced no unpleasant symptoms, and was very effective. If omitted, the temperature would again almost immediately begin to rise.

THE PRESIDENT was usually averse to the employment of any drug which would disturb the bowels, but when constipation became uncomfortable to the patient he was in the habit of giving a single dose of five grains of calomel, well rubbed up with fifteen grains of bicarbonate of soda, with excellent results.

Dr. DELAFIELD, in closing the discussion, said that typhoid fever, like other diseases, showed a more or less varied course. The cases were not always of a typical kind, as described by Liebermeister. This author had been the cause of much misunderstanding by giving so positive and definite a course of the affection, such as did not exist in nature. He was in the habit of employing a laxative when constipation existed early in the disease, and with good effects.

NEW YORK PATHOLOGICAL SOCIETY.

A STATED meeting was held November 14, 1883, GEORGE F. SHRADY, M.D., President, in the chair.

TOOTH IN THE ANTRUM OF HIGHMORE.

Dr. J. A. WYETH presented one of the permanent teeth which he had removed from the antrum of Highmore in a woman 26 years of age, who had suffered from difficulty referred to that locality for about thirteen years, dating from an attack of measles or scarlet fever. A dentist had withdrawn a tooth, from the locality of which pus discharged from time to time for some years afterwards. Dr. Wyeth withdrew two of the teeth, and entered the antrum for the purpose of cleaning it and establishing drainage, when he came upon the foreign body in the form of a tooth. It was the only authenticated case of the kind of which he had any knowledge. He asked the members if they had had a similar experience.

EMBOLISM OF THE BASILAR ARTERY OF THE BRAIN.

Dr. G. L. PEABODY presented the heart and a portion of the brain removed from a man last spring. The patient had signs of heart- and kidney-lesions; had suffered from rheumatism; his mother had died of cardiac disease. He suffered from dyspnœa, cardiac palpitation, headache, anasarca, and a few hours before death became silly, and then very violent, requiring to be placed in the strait-jacket. The urine passed in twenty-four hours diminished to fourteen ounces. He died in a state of stupor. At the autopsy, cardiac hypertrophy and dilatation were present. The mitral valves were markedly thickened, stiffened, and their surfaces rough. There was hemorrhagic infarction in one lung, and, just above, signs of acute pleurisy. The kidneys were the seat of extensive lesions. The parietal and the visceral layers of the pericardium were adherent. The basilar artery was found almost completely plugged with an embolus,—a condition which Dr. Peabody considered very rare. The rest of the brain, receiving its blood-supply through other channels, was healthy. The time of lodgment of the embolus probably corresponded to the time of development of delirium.

Dr. WYETH asked Dr. Peabody what he considered the immediate cause of death.

Dr. PEABODY thought it difficult to answer, for there were several conditions which might have produced immediate death.

Dr. WYETH asked the question because two cases of thrombus of the basilar artery had come under his observation in which death was attributed to anæmia of the pons and medulla, and there were other cases of the kind on record. At the time of the death of one of these patients he was contemplating ligature of the vertebral arteries in a case of epilepsy supposed to be due to miliary aneurism. He gave up the operation, because he feared voluntarily to produce a condition, namely, anæmia of the parts supplied by the vertebral arteries, which in the other case, happening by accident, seemed to have been the direct cause of death. A Liverpool surgeon, however, had tied the vertebral arteries in a number of cases for epilepsy, in some of which a cure seemed to have been effected; others were benefited. In none had evil resulted directly from the operation.

EXOSTOSIS OF THE ETHMOID BONE.

Dr. HERMAN KNAPP presented the specimen, which had been removed from a woman, 45 years of age, who had suffered from nasal polypi for fifteen years past. Several operations had been performed at different times for removal of the polypi, and lately they had grown very rapidly. Some weeks ago, when the patient first consulted him, one nostril was nearly completely plugged, and the other also largely occupied by the growths. He advised their removal, which was done by Dr. Lincoln, the sittings extending over several weeks. He then said he could go no further. Dr. Knapp removed the tumor, which was pressing the eyeball towards the temple and forward. Its removal was easily accomplished, and in a very simple manner, judging from operations of a like kind done before. No reaction whatever was anticipated. A sharp spoon was employed to remove the remaining accessible polypi, a number of which existed in the frontal sinus. The patient did well for the first twenty-four hours, then began to complain of headache, cerebral symptoms increased, and she died in coma on the fourth day after the operation. At the

autopsy the dura on the right side of the convex surface of the brain was completely infiltrated with pus; the meshes of the pia, and the spaces beneath, were distended with serum, flattening the convolutions beneath. The pathological condition was much less marked on the left side, corresponding to that on which the operation had been performed, and also on the base. The ethmoid cells, and also those of the sphenoid, and of the frontal sinuses which could not be reached during life, were studded with polypi. There was cheesy pus in the sphenoid cavity, which doubtless had existed before the operation and had paved the way for death. The wound at the former seat of the tumor had healed by first intention, and no reaction had taken place. The tumor was found to have developed from the ethmoid, and was of ivory hardness. Dr. Knapp dwelt upon the necessity for removing nasal polypi before they shall have gone on to fill inaccessible cavities, to cause the collection and decomposition of the natural secretions, and have taken on a malignant character. He did not think the fatal result in the present case was at all due to the removal of the exostosis, although possibly this had something to do with lighting up the fire that already existed.

HYDATID MOLE.

Dr. CHARLES HEITZMANN presented a specimen of this nature, which had been expelled at the fifth month of pregnancy, and spoke of its microscopical appearances, saying that he agreed with the view of its true nature entertained by Virchow.

CANCER OF THE BREAST.

Dr. A. G. GERSTER presented the specimen, which had been removed from a woman who first appeared last spring at the German Dispensary. She had given birth to and nursed nine children. There was a slight bloody discharge from the nipple, but the gland was in no other respect affected. There was no sign of enlargement of the lymphatics in the axilla. He suspected cancer, but the patient would not submit to an operation, and the case was watched by his assistants until his return in the fall, at which time, they said, the condition was similar to that which had existed in the spring. On careful examination, however, Dr. Gerster found enlargement of the axillary glands, and removed them with the breast. This was the third case of the kind which he had seen in which the disease of the breast consisted only in a sanguineous discharge from the nipple, while the condition of the axillary glands pointed to undoubted malignant disease. He would call attention to the fact that unless a very careful examination were made, even in the lean patient, slight enlargement of the axillary lymphatics would be overlooked.

AMPUTATION AT THE THIGH FOR STRUMOUS AND PHLEGMONOUS INFLAMMATION OF THE KNEE-JOINT.

Dr. GERSTER also presented the leg which he had removed from a boy on account of the presence of a strumous and phlegmonous inflammation of the knee. Strumous disease of the knee-joint had existed for some time, but, fever developing, a physician was called, who regarded it as of rheumatic origin, and poulticed the knee, with the result of producing phlegmonous inflammation. The inflammation extended well up on the upper third of the thigh, and made it necessary to perform amputation. On account of a want of sufficient healthy tissue, a part of the flap was taken from the phlegmonous integument; nevertheless the patient made an excellent recovery, and the wound healed mostly by first intention. Dr. Gerster attributed this result to the use of a strong solution of bichloride of mercury, 1 to 500, which probably killed the germs of disease.

CANCER OF THE ŒSOPHAGUS.

Dr. E. K. HENSCHEL presented the specimen, which had been removed from a man 73 years of age, who had suffered for over two years with eructations and other dyspeptic symptoms, although not of a severe nature, until he became unable to swallow solids. Later, difficulty was experienced in swallowing liquids. There had been increasing dulness over the right side of the sternum at a point opposite that of the obstruction in the œsophagus. The patient lost a great deal of flesh. After the passage of a bougie he spat up two clots of blood, and was then improved, gaining twenty-five pounds in flesh. But this was only temporary. A few days before death, symptoms of pleurisy developed at the point of dulness over the sternum, fluid exudation appeared in the entire chest, the patient became unconscious, and died. A large cancerous ulcer was found in the œsophagus, which had ulcerated into the lung, and into which and the pleural cavity the contents of the stomach had entered by regurgitation and partially digested the tissues with which they came in contact.

AN ENORMOUS HEART.

Dr. B. ROBINSON presented the heart of a man six feet four or five inches tall and of large proportions, who recently died in the St. Luke's Hospital. He had suffered for several years with dyspnœa and other symptoms which might be attributable to disturbed circulation. Before death, on one occasion while dyspnœa was very great and the jugular veins distended, fifteen ounces of blood were withdrawn from a vein in the arm. Very great and immediate relief from the symptoms took place, but was not permanent. At the autopsy the heart was found to weigh

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about fifty-five ounces, the largest of any which Dr. Robinson had found recorded.

THE PRESIDENT believed that the heart once presented to the Society by Dr. Clark weighed fifty seven ounces.

TYPHOID LESIONS OF THE INTESTINE.

Dr. ROBINSON also presented the intestines of a patient who died in the hospital in a relapse of typhoid fever. The temperature had run a very irregular course. Shortly before death it suddenly dropped to 96.6°. Two perforations of the intestines were found.

Dr. FERGUSON gave the history of a man in whom, at the autopsy, extensive lesions were found in the kidneys, congestion of the stomach and intestine, hypertrophy with dilatation of the heart, fibrinous adhesion between the visceral and parietal layers of the pericardium, and brown induration of the lungs. The man was about 25 years of age, single, addicted to the use of spirituous liquors, and had had rheumatism. His symptoms before death were dyspnœa, orthopnœa, headache, delirium, etc.

DISSECTING METRITIS.

Dr. H. J. GARRIGUES presented two specimens illustrating this affection, constituting the seventh and eighth of a series which had now come under his observation. The histories of the other six cases had been published. The first of the present cases was that of a woman who was confined with her third child at the Maternity Hospital last spring. Uterine and vaginal injections were employed. Some diphtheritic patches were noticed on the slightly-lacerated perineum. The head of the child had been delivered with the forceps. When the mass was discharged, which was about seven by two centimetres, the patient made a speedy recovery. The mass was composed of uterine muscular tissue. The second case was that of a primipara, and the delivery was normal. There was a slight laceration of the perineum. The uterus did not properly contract; the patient suffered pelvic pain. After some days, the treatment being by injections of carbolic acid solution, salicylate of soda, etc., a mass somewhat larger than in the other case, and folded upon itself, was discharged. It was found to be composed of uterine tissue. He had been able to find mention of but two similar cases, besides the ones he had published, and in those two cases the true nature was not recognized. A member of the Society stated, when he presented a former specimen, that certain cases had been reported in an Edinburgh journal; but this was a mistake, as neither Dr. Garrigues nor the gentleman himself had since been able to find such records.

MEASLES FOLLOWED BY CAPILLARY BRONCHITIS.

Dr. J. LEWIS SMITH presented the specimen, and made a few remarks upon the case, and said that, as the hour was growing late, he would reserve the reading of the paper for another occasion. The child was five years of age, and had had measles, which progressed very favorably until laryngeal symptoms developed, and then, in spite of careful attention and treatment, it sank and died. The voice had been lost, but no pseudo-membrane could be found to account for it; there were the usual signs of capillary and general bronchitis. Dr. Smith remarked that when measles became complicated by capillary bronchitis the cases proved fully as fatal as did cases of scarlet fever.

The Society then went into executive session.

MEETING OF THE ALUMNI ASSOCIATION OF THE JEFFERSON MEDICAL COLLEGE ON THE DEATH OF DR. J. MARION SIMS.

REMARKS BY PROFESSOR S. D. GROSS.

A SPECIAL meeting of the Alumni Association of the Jefferson Medical College was held at the college on Friday evening, November 16, to take action upon the death of Dr. J. Marion Sims, of New York.

Prof. S. D. Gross, President of the Association, in opening the meeting made the following remarks:

Gentlemen of the Alumni Association,—The object of our meeting this evening is no ordinary one: it is to express our grief at the loss of a great and distinguished man, Dr. J. Marion Sims, one of the most eminent members of this Association, as well as one of the greatest ornaments of the school, and at the same time to express our sympathy with his bereaved family.

Dr. Sims occupied a prominent position before the profession of this and other countries for upwards of a quarter of a century. I have known him for a long time, and in his death I feel that I have lost one of the best and truest of friends. He was a man of wide reputation; and I venture to say that the youngest member of the class now attending Jefferson Medical College has heard of the name of J. Marion Sims. Every physician, however obscure, is familiar with his labors, his skill, and the benefits he rendered to the profession. It is to give expression to our feelings at the great loss we have sustained that we are assembled here this evening. Six years have elapsed since we met in this room to take action upon the death of Dr. Washington L. Atlee, a man whose name is distinguished as one of the founders of gynæcology in this country; and only about a year and a half ago we gathered here to express our grief at the loss of another great man, one not a graduate of the school, but a member of the Faculty of the college, Prof. Joseph Pancoast, a man whom

we all loved, and whose memory lives after him. Now we meet to do honor to the memory of Dr. Sims.

Dr. James Marion Sims was a native of South Carolina, where he was born in 1813. His early education was received at Charleston, in the medical school of which he was graduated in 1832. He came to Jefferson College in 1834, and took his degree the following spring. He settled in Montgomery, Alabama, and soon after he met with a large number of cases of vesico-vaginal fistula, chiefly among colored women. As their condition at that time was generally considered hopeless, his sympathy was excited for them, and he set to work to devise some means for their relief. In consequence of representations made to him, he determined to establish a private hospital for the treatment of such affections. The hospital contained sixteen beds, and in it he performed a large number of operations, most of which were perfectly futile. But he persevered, and he was not satisfied until in 1848, when, having had his first success in the relief of vesico-vaginal fistula, he had achieved a great triumph. Operations of this kind had been practised before in different parts of the world, but these operations were not based upon any well-founded principles; and it was only after long study and perseverance that he was able to lay down the correct principles for the successful treatment of this distressing malady. There was an incident in his life that I must here refer to. A lady had the misfortune—or the good fortune, as it turned out for the interests of scientific progress—to fall from her carriage and dislocate her womb. In order to reduce it, Dr. Sims placed her upon her knees and elbows and restored the dislocated organ, and to his surprise he saw the vagina remaining widely distended. This was a revelation to him, which led him to adopt this posture in his future examinations and operations, which is universally known as Sims's position, and it also led to the invention of the Sims's speculum, in connection with which his name will always be known. The operation for vesico-vaginal fistula has now been performed thousands and thousands of times in all parts of the civilized world, all based upon the principles originally enunciated by Dr. Sims. I do not propose to speak longer of this operation of Sims or of his other contributions to surgery, but there are several points in his character that I will briefly refer to. Sims was a man of keen observation: he allowed nothing to escape his mind. Thousands of human beings had witnessed the fall of an apple, but it was not until it was noticed by a Newton that it led to the discovery of the laws of gravitation; and thousands had seen the swinging lamp in the cathedral at Pisa, but it never led to any result until it was observed by Galileo, who first appreciated its value for measuring time and applied it as the pendulum-movement in the clock. So it was with Sims. He applied the information which he gained from that woman with the dislocated uterus with such genius and ability that he is known everywhere as the Father of American Gynæcology. He was a man, moreover, of great patience and tenacity of purpose. Upon one of his cases he performed the same operation thirty times,—an example of patience seldom paralleled in the annals of our profession. He was determined to succeed,—determined not to be foiled in his efforts to relieve the poor victims of a loathsome affection.

Dr. Sims was a gentleman, a gentleman of the highest type. He was a large-hearted man, a liberal-minded man, a man generous to a fault, and a man of brilliant intellect. He was never connected with a chair in any medical school,—his health never permitted him to assume the duties of such a position,—but he was a well read man and an author; he expressed himself with eloquence and in the best language. But, gentlemen, this man died poor. He died poor because he could not help it. From a private letter which I received from him, dated in Paris last May, I learned the reasons why he did not make America his permanent home, why he expatriated himself for the greater portion of the time. He says, "I can make as much money in New York as I desire, but the climate does not agree with me as well as that of Europe. I can make more money there with less labor, and the expenses of living are less. Besides, it is not necessary I should assist Harry any longer: he is fully able to take care of himself."

The history of Dr. Sims is known not only in this country but in every part of the earth. He performed his operations in every civilized country in Europe, and was everywhere received with honor. France, Italy, Spain, Belgium, and Portugal sent him their decorations, the highest gifts bestowed upon foreigners for merit. Dr. Sims was connected with a great many medical societies in this country and in Europe; everywhere he went he was honored. When he went abroad, in 1861, he was invited to perform his operations in many of the hospitals of London, Paris, Belgium, and Dublin, which were thrown open to him for the purpose of demonstrating his methods.

Gentlemen, this was the man whose memory we meet to-night to commemorate. I think it proper that a committee should be now appointed in order to draft suitable resolutions expressive of our deep regret at the loss we have sustained, and of our warmest sympathy with his bereaved family.

The chair will nominate Drs. Hewson, Pancoast, and Andrews for this duty.

The committee presented the following resolutions, which were offered by Dr. Addinell Hewson:

"*Whereas* we have learned with extreme surprise and regret of the sudden demise of our distinguished fellow-alumnus, Dr. J. Marion Sims, an event which occurred from heart-disease, in the city of New York, on the morning of the 13th instant, at a time of his life when he seemed as active and zealous in his work as ever;

"*And whereas* we feel that his loss is a most grievous one, not only to his immediate family, but to all who had relations with him either socially or professionally in the many years of his brilliant career in this country and abroad, we would desire to give some expression here of our heart-felt sympathies with those to whom his memory must be ever dear, —of our appreciation of him as a refined gentleman, and of our pride in him not only as a fellow-member of our Association and one of the most distinguished of the alumni of our *alma mater*, but as one of the most learned, liberal, and skilful members of the profession of the present day: therefore be it

"*Resolved*, First, that we offer our kindest sympathies to his family in their great affliction, with our assurances that they must ever be proud of those relations which bound him to them and to us. Secondly, that we, as individuals, as well as a body, will ever feel our loss in his death, and remember with pride and satisfaction what he did to exalt our calling and to advance the purposes of our Association."

The resolutions were unanimously adopted, after remarks by Prof. William H. Pancoast, Prof. Parvin, and Dr. Hewson, and the meeting adjourned.

MISCELLANY.

A FRAGMENT OF THE CODE CONTROVERSY IN THE NEW YORK ACADEMY OF MEDICINE.—The following has been received from Dr. Harwood, the author of the communication:

"The following reasons why one of the Fellows of the New York Academy of Medicine declined to vote on resolutions when the yeas and nays were called, are contained in a communication to the Academy at its meeting held October 18, 1883:

"'Mr. President and Fellows of the New York Academy of Medicine:

"'Important as the business before the Academy is, the undersigned believes that in view of the serious misrepresentations made as to his position regarding the voting on Dr. Flint, Jr.'s resolution, April 19, 1883,* he will be permitted, as a matter of privilege, to make a brief explanation.

"'When called on to vote on said resolution, he declined to do so, and was subsequently reproached, both within and without these halls, for duplicity, timidity, and similar unpleasant qualities. He desires to state that his declining to vote had an entirely different motive from any which could be based on the contents of said resolutions. He believed and stated at the time, and still believes, that *said resolutions were out of order*, or, at least, inconsistent with those passed about a year previous and which were offered by Dr. Austin Flint, Sr.

"To those who have forgotten the transaction alluded to it may prove of interest to know that according to the Secretary's minutes of April 6, 1882,† 'The report of delegates to the State Medical Society was then taken up, and after remarks by Dr. Austin Flint, Sr., he moved that the report be accepted and the *further consideration of the topics and objects which it contained be indefinitely postponed.*

"'Seconded and unanimously carried.'

"He was therefore in the unpleasant alternative position of either voting against resolutions which the Academy had previously sustained *the spirit of*, or of voting for them and repudiating the previous resolution carried by the Society. Aside from this, the defect of the resolution, the one before the house was not voted for as required by Section 5, Article XXV. of the By-Laws, which requires that the yeas and nays on any question shall be taken without debate, and recorded in the minutes, when called for by five Fellows present. It is a fact that the yeas and nays were not called for by five Fellows in accordance

* *Resolved*, That the Academy hereby disavows any sympathy with the action of the State Medical Society, which has put the profession of the State, through its State and County Societies, in an attitude of opposition to the medical profession of the rest of the United States.

Whereas, The New York Academy of Medicine has adopted in its By-Laws as its standard of medical ethics the Code of Ethics of the American Medical Association, and

Whereas, Each newly-elected Fellow of the Academy is requested to sign its Constitution and By-Laws, be it

Resolved, That the Committee on Admissions be and is hereby instructed to report to the Academy for election as Resident Fellow no physician who is known to the Committee to be in opposition to the Code of Ethics of the Academy, and who, as a consequence, cannot consistently sign the By-Laws of the Academy.

Resolved, That these instructions to the Committee on Admissions be continued in force until the American Medical Association shall have modified or repealed its Code of Ethics and such modification or repeal shall have been adopted by the Academy, or until the Academy shall have modified or repealed its By-Laws referring to medical ethics.

Dr. Gouley moved that reconsideration of the vote on that resolution instructing the Committee on Admissions be indefinitely postponed. Seconded and carried.

It is claimed that the passage of these resolutions was secured through a packed house, brought about through the medium of a secret circular.

On motion of Dr. A. L. Loomis, duly seconded, these resolutions were rescinded by a large majority-vote, leaving the National Code intact and the qualifications for resident Fellowship as formerly required by the By-Laws.

† The report cited referred to the New York State Code, and, as it was not in accord with the Code of the Academy, it was thought best to bury it, which was done with the full assent of all the Fellows present: but a year or more subsequent it was in effect unwisely and unlawfully resurrected, for what purpose cannot be appreciated, but its effect was to cause, what Dr. Flint, Sr.'s motion was intended to avert, bitter feelings and unpleasant commotion among the Fellows. It is now hoped, as the Academy is again restored to its original basis, that scientific work will be renewed, and peace and harmony will forever prevail within its walls.

with the provision of the By-Laws, and this fact can be ascertained from the minutes.

"Respectfully submitted by

"(Signed) ED. C. HARWOOD, M.D.

"44 WEST FORTY-NINTH STREET,
NEW YORK, October 18, 1883."

CANCER OF THE BREAST IN A GIRL.—A remarkable instance of the breast being attacked with cancer has lately occurred in a patient aged only 13 years, who was last week under the care of Sir George Porter, in the Meath Hospital, Dublin. The part implicated was removed on the 24th ult., and the case is interesting in consequence of the youth of the patient. The cancer was not scirrhus, but consisted of a soft variety of the disease. —*Lancet*, November 3.

FRACTURE OF THE THYROID CARTILAGE IN LEGAL MEDICINE.—Suspicion of murder led to the disinterment in San Francisco of the body of a man who recently had been found dead. Upon examination, fracture of the right wing of the thyroid cartilage was discovered, showing that the man had come to his death from strangulation, due to pressure with the right hand of an assailant.—*Pacific Medical Journal*, October.

TREATMENT OF TAPE-WORM BY MALE FERN.—Empty the bowels by a mild purgative on the day before the specific treatment. Give the oleoresin of male fern, mixed with two parts of castor oil, in capsules containing about forty-five grains, of which six or eight may be given. Administered in this way, Dr. E. Dieterich says that it does not derange the stomach.—*London Medical Record.*

THE *Drug News* states that Dr. Brandini, of Florence, has recently discovered that citric acid will assuage the violent pain which is the usual concomitant of cancer. He applies to the part pledgets of lint soaked in a solution of four grains of the acid in three hundred and fifty grains of common water, with the result of affording instantaneous relief.

GERMAN HOSPITAL AMBULANCE SERVICE —A HANDSOME DONATION.—The German Hospital of this city has received a gift of one thousand dollars from the managers of the German-American Bi-Centennial Association, through Dr. Ferdinand H. Gross, President. This amount will be devoted to establishing an ambulance service.

APPOINTMENT OF SURGEON-GENERAL.—Surgeon Robert Murray has been appointed Surgeon-General U. S. A., as the successor of Surgeon-General Crane, recently deceased.

FORMAD ON BACILLUS TUBERCULOSIS.—At the last meeting of the Philadelphia County Medical Society, Dr. H. F. Formad gave the results of his recent investigations into the pathology of tuberculosis, which will appear in an early issue of the *Times*.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM NOVEMBER 10 *TO NOVEMBER* 24, 1883.

MOORE, JOHN, LIEUTENANT-COLONEL.—Relieved from duty as Medical Director Department of the Columbia. G. O. 29, Department of the Columbia, November 8, 1883.

BACHE, DALLAS, MAJOR AND SURGEON.—Ordered to report in person to the commanding general Department of the East for assignment to duty. Paragraph 10, S. O. 259, A. G. O., November 12, 1883.

BACHE, DALLAS, MAJOR AND SURGEON.—Assigned to duty at Fort Adams, Rhode Island. Paragraph 5, S. O. 215, Department of the East, November 19, 1883.

BROOKE, JAMES, MAJOR AND SURGEON.—Relieved from duty at Angel Island, California, and assigned to duty as post surgeon, Presidio of San Francisco, California. Paragraph 1, S. O. 162, Department of California, November 14, 1883.

HORTON, SAMUEL M., MAJOR AND SURGEON.—Leave of absence granted October 20, 1883, extended three months. Paragraph 7, S. O. 266, A. G. O., November 20, 1883.

TOWN, F. L., MAJOR AND SURGEON.—Until further orders, to perform the duties of Medical Director Department of the Columbia. G. O. 29, Department of the Columbia, November 8, 1883.

WILLIAMS, JOHN W., MAJOR AND SURGEON.—Granted leave of absence for one month, on surgeon's certificate of disability, with permission to leave the limits of the Department. Paragraph 5, S. O. 157, Department of the Columbia, November 12, 1883.

APPEL, D. M., CAPTAIN AND ASSISTANT-SURGEON.—Granted two months' leave of absence. S. O. 68, Division of the Atlantic, November 16, 1883.

GARDINER, J. DE B. W., CAPTAIN AND ASSISTANT-SURGEON. —Relieved from duty at Fort Huachuca, and assigned to duty as Post Surgeon at Fort Bowie, A. T. Paragraph 1, S. O. 104, Department of Arizona, November 8, 1883.

MUNN, CURTIS E., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty at Fort Warren, Massachusetts. Paragraph 4, S. O. 216, Department of the East, November 20, 1883.

WINNE, CHARLES K., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty at Fort Winfield Scott, California, and assigned to duty as post surgeon, Angel Island, California. Paragraph 1, S. O. 162, Department of California, November 14, 1883.

APPEL, A. H., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty at Fort Warren, Massachusetts, and assigned to duty at Madison Barracks, New York. Paragraph 4, S. O. 217, Department of the East, November 21, 1883.

COCHRAN, J. J., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty at Fort Bayard, New Mexico. Paragraph 5, S. O. 236, Department of the Missouri, November 15, 1883.

EGAN, PETER R., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Upon being relieved from duty at Fort Bowie, A. T., to proceed without delay to Fort Huachuca and report to the commanding officer at that post for duty. Paragraph 1, S. O. 104, Department of Arizona, November 8, 1883.

RICHARD, CHARLES, FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty at Fort Adams, Rhode Island. Paragraph 3, S. O. 216, Department of the East, November 20, 1883.

WILSON, GEORGE F., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—To report in person to Lieutenant Schwatka, Third Cavalry, aide-de-camp, for temporary duty in connection with the completion of report of recent expedition to Alaska. Paragraph 3, S. O. 156, Department of the Columbia, November 9, 1883.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY FROM NOVEMBER 10 *TO NOVEMBER* 24, 1883.

P. A. Surgeon C. H. H. HALL ordered to the Naval Academy, Annapolis, Maryland.

Medical Inspector STEPHEN D. KENNEDY dismissed the service by sentence of a general court-martial.